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IRON AGE

MANUFACTURING MANAGEMENT

September 6, 1985

IRON AGE'S ANNUAL FINANCIAL SCOREBOARD:

WAS YOUR COMPANY A

Performance

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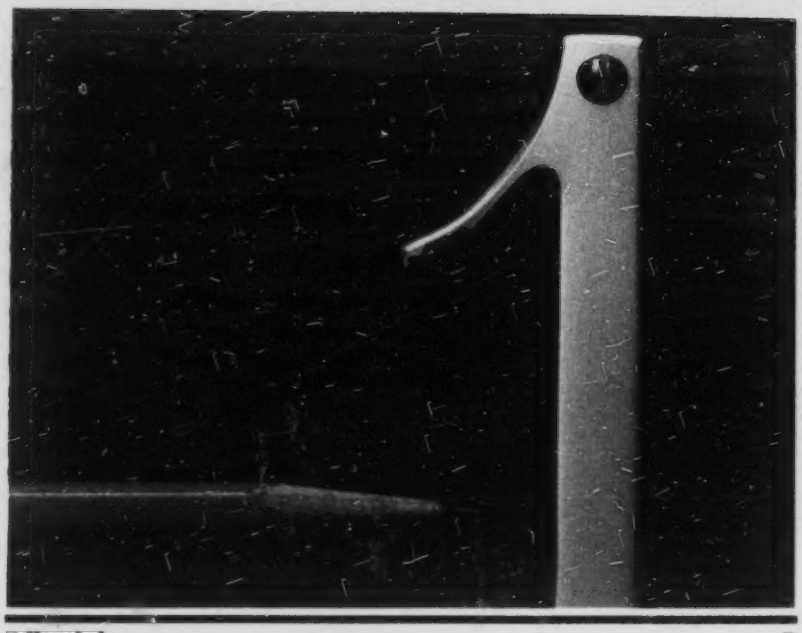
FORD AND CHRYSLER UNLEASH THE ALPHA AND LIBERTY

SECOND QUARTER STEEL AND NONFERROUS EARNINGS: STILL NO END TO THE RED INK

SEPTEMBER 6, 1985 VOL. 228, NO. 17

CHILTON'S
IRON AGE
MANUFACTURING MANAGEMENT



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TOP MANAGERS FACE A GRILLING

The questions suggest that stockholders are smarter and more world-wise.

Leasing—As a Pct of Capital Equipment Investment

Sources: U.S. Commerce Dept

BY JOHN BAXTER

Each year, the accounting firm of Coopers & Lybrand prepares a list of questions for the management of its client companies—questions they can expect to face at their annual shareholder meetings.

The questions prepared for 1985 reflect more knowing stockholders than in years past. This year's inquiries also indicate increased concern with matters of corporate diversification and foreign competition.

The traditional questions on corporate sales and earnings have become more penetrating. For example, one multi-part question asks: How much of the change in sales and earnings was attributable to volume? Product mix? Inflation?

Corporate diversification is on the minds of shareholders. Another group of questions highlights this concern: What is the company's philosophy on expansion and/or diversification? Why was Company X acquired? What is management's expertise in the industry in which the acquired company operates?

Questions on international aspects of companies have risen. An example: Has the company considered making products through a joint venture with a foreign firm?

The foreign-oriented questions go deeper. Here are others: Has the continued strength of the dollar affected the company's ability to compete in foreign markets? Has the company considered moving facilities to foreign locations to minimize effects of the strong dollar?

There are more questions on world competition. For example: What is the company's potential in the international market? And, how does foreign competition affect marketing efforts?

Some questions about a company's overseas facilities are more pointed. Example: Why is there disparity in profit margins between domestic and foreign operations?

The unspoken message of Coopers & Lybrand to corporate senior managers is for them to be on their toes. The questions suggest that stockholders are smarter and more world-wise.

And, as a corporate investor relations executive noted, stockholders want straightforward answers, "not the bland and perfunctory assurances they heard from many managers in the past."

Leasing is tops in capital investment

Leasing has become the No. 1 funding source for capital equipment investment in this country.

A recent report from the U.S. Commerce Department, entitled "A Competitive Assessment of the U.S. Equipment Leasing Industry," says leasing has accounted for an ever-larger share of capital equipment investment in recent years.

The report showed that in 1978 leasing accounted for 15.6 pct of all capital equipment. In 1983, that share had risen to 27.4 pct.

In a sum-up of the report, government analysts noted: "Equipment leasing, which totaled $61.2 billion in 1983, has shown an 18.2 pct annual growth rate over a 5-year period, making it the largest single source of funds for capital investment, larger than corporate equities, commercial bank loans, and undistributed corporate profits."

U.S. equipment lessors are in the lead worldwide right now. But their share of the world market is under fire. The report added that U.S. lessors leased an estimated $8 billion to $10 billion worth of equipment to foreign lessees in 1983. But it added that their market share will diminish because of increased competition from foreign lessors, particularly European and Japanese firms.

IRON AGE'S ANNUAL FINANCIAL SCOREBOARD:

WAS YOUR COMPANY A *Performance Leader?*

An analysis of the scoreboard data shows that metalworking industries made some financial gains last year. But measured over the turbulent past five years, the data shows up some corporate scars. Still, some companies seem to find ways to grow under even the worst of conditions.

BY JOHN D. BAXTER

Companies that are doing well these days can probably do well under any conditions.

That's how rough the times have been.

The economy has been on a roller-coaster at the same time industry

IRON AGE'S ANNUAL FINANCIAL SCOREBOARD

has been in the throes of massive restructuring.

The rough times are reflected here in the tables that give a financial profile of the metals producing and metalworking industries. This report, and tables, mark the second year that Iron Age has presented its Financial Scoreboard.

A study of the data will show that many companies are doing much more than just riding out a turbulent period. They have been, and are, continuing to grow, and in some cases, strongly.

The continued growth in some companies reflects successful restructuring moves, whether by mergers, acquisitions or disinvestments. In other companies, growth reflects determined efforts to do far better the things they had long been doing. In other companies, growth has come from finding and establishing leadership positions in new market niches. Most widespread, perhaps, much of the corporate growth thrust detected in the tables here is due to companies achieving new levels of cost-effectiveness in their operations.

As one successful corporate top executive has said, "Corporate growth is a very individual matter. Each company has to find its own way to grow."

Caution: Use with Care

Another point worth noting as the tables are scanned center on those companies with continuing weak financial profiles. Some of these companies, of course, are simply ones that are being battered by economic circumstances; for one reason or another, their markets are being hit harder than others. An instance might well be those companies making farm equipment.

Also, in the case of companies with weak showings on the tables, some look bad because they have long-term strategies in motion but have not yet reaped any real payoffs. This holds true for some companies in the steel industry and a number listed under Diversified Metalworking. Some of the most extensive restructuring of corporations is occurring in those industries.

It is circumstances like those that make it worthwhile to have a clear grasp of the overall economic scene before a scan is made of the tables here. An overview can bring added meaning in an examination of the data. For sure, such an overview can help explain the many minus signs seen among the individual corporate financial measures.

The order of ranking in the Financial Scoreboard within each industry grouping is according to returns earned by companies on total invested capital over their five most recent fiscal years. This measure is used because it best offers a full and fair comparison of individual corporate performances. Too, the five-year span offers better comparisons among companies that are highly cyclical. A one-year look in such cases can give a misleading report on the real state of health of such companies.

Not the Best of Times

So, the five-year span then, in most part, covers the calendar years 1980 through 1984.

U.S. economic growth over those five years was both erratic and sluggish. The annual average growth rate for real Gross National Product over the years came to 2.1 pct, well below the U.S. long-term average of 3.5 pct. The best growth year in the span was 1984—a 6.8 pct expansion. The worst year was 1982, when the economy actually contracted by 2.1 pct. Other years in the span were up and down ones that made up an unhealthy roller-coaster ride for metalworking's many cycle-sensitive industries.

At the same time, a super-strong dollar in world currency exchanges, in effect, raised prices on exports and lowered prices on imports. That happened even as world competitors were hammering away at U.S. markets as never before—and also stealing some overseas markets of U.S. manufacturers. At the start of the five-year period, 1980, the U.S. trade deficit totaled $36 billion; in the closing year, 1984, this deficit had swelled to an alltime record high of $123 billion.

Worse, in the span of years noted, the U.S. trade balance in manufactured goods—a traditionally strong element in U.S. trade—went from a $19 billion surplus in 1980 to an

alltime record deficit of $78 billion last year.

Among the industries hit hardest by overwhelming foreign competition were many of those listed in the Financial Scoreboard. These included the steel, automotive and machine tool industries.

So, the five-year span measured in the scoreboard, 1980-84, turned out to be a Rocky Horror show for much of metalworking. Overall economic growth was sluggish and wildly cyclical. Interest rates soared through much of the period. The dollar went out of sight. And world trade competition was overwhelming.

It was in that turbulent setting that U.S. industry carried on a massive restructuring effort as it sought desperately to become more cost-effective and, in many lines, to restore itself as a world-class competitor.

A Look at the Record

With an economic framework in place, the picture of individual industry and company performances can now be inserted.

The Financial Scoreboard lists some 260 companies in 14 industry groups. As noted, ranking of companies in each group is arranged according to returns earned on invested capital over a five-year span.

The tables are divided roughly in half. On the left side is listed data for last year for companies and a comparison of those figures with 1983.

On the right side of the table are listed the financial measures covering the five latest fiscal years of companies. The key figure that determines ranking of companies appears on the right hand side.

Return on invested capital shows how much a company earned on both its stockholders' equity and its long-term debt. Thus, it measures how well corporate leaders managed the financial resources at their disposal. Further, the five-year span tends to smooth out cyclical ups and downs and non-recurring transactions that can distort data over shorter periods of time.

Where to Look

Corporate financial figures, such as those shown on the tables here, can be very revealing, and at the same time, very confusing. In looking at the tables, some of the most useful and revealing insights can be gained if comparisons are confined chiefly to companies of similar size and product mix. That is not easy to do in view of increasing corporate diversification in U.S. industry.

Return on invested capital is one of the best measures of overall corporate management, but it still must be handled with care. In itself, it has limited meaning. In order to get a meaningful measure of the health of any company, a number of measures and ratios should be studied.

For example, the lowest five-year return on invested capital for any industry group leader on the tables is Deere & Co.'s 4.3 pct return in the Farm and Construction Machinery group. That will come as no surprise to those who have even an inkling of what has been going on in the farm machinery market. That market has long been flat-out depressed. Actually, it is remarkable that any U.S. farm machinery builder could manage to achieve a five-year investment return as high as did Deere over the time span.

It might surprise some, however, that General Motors led the auto builders with a very modest 6.8 pct return. There are two points that help explain this showing. First, the five-year period measured for this return included some lean years for auto sales as well as the more recent solid years. Also, the auto industry has lately outspent most other industries in new and renewed plants. That outgo has not yet reaped any sizeable inflow. GM has led in making big investment outlays. Earlier this year, GM announced a new $9 billion investment plan to expand and automate plants.

In the report on last year's Financial Scoreboard, a final caution was worded that bears reaffirmation. It noted that due to the arcane ways of corporate accounting, as much is often not told in figures as is told. Some of the companies with very poor figures listed on the tables here are well-managed. They will likely show up near the head of their industry listings in the Iron Age 1990 scoreboard.

The five-year span measured in the scoreboard, 1980-84, turned out to be a Rocky Horror show for much of metalworking. Interest rates soared, the dollar went out of sight. And world trade competition was overwhelming.

PRIMARY STEEL

Companies ranked in order of five year average annual return on invested capital

	1984 (Dollars in thousands per company fiscal years)						Five Year Growth, Pct (Average annual growth over five latest fiscal years)					
Company	Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Nucor Corp.	660,260	21.7	74,590	59.3	44,548	59.9	9.6	3.3	6.6	12.5	15.4	6.4
Carpenter Tech.*	528,824	33.1	62,549	+	33,441	+	4.3	15.9	8.1	11.0	12.3	6.5
Florida Steel*	286,108	21.7	12,048	+	6,662	+	4.5	45.6	35.6	4.8	6.6	1.9
Athlone Ind.	281,935	20.4	19,969	+	6,048	+	1.3	23.5	+	4.6	10.8	2.1
Cyclops	1,271,593	24.2	41,067	+	18,434	+	7.7	+	+	3.4	4.8	0.8
Copperweld Corp.*	442,154	35.8	3,449	+	4,533	+	2.2	(1.1)	(9.8)	2.3	2.5	0.1
U. S. Steel Corp.	19,104,000	9.0	1,566,000	+	493,000	+	9.1	71.8	34.6	2.3	1.7	1.2
Laclede Steel Co.	231,643	21.8	15,731	+	7,496	48.5	1.4	+	-	1.4	1.3	0.5
Lukens Steel	416,384	21.4	18,871	+	4,701	+	4.6	28.7	-	1.1	0.9	0.3
LTV Corp.*	7,046,100	53.9	(197,600)	7.1	(378,200)	-	8.8	8.0	(18.1)	(0.4)	(2.0)	(0.9)
Northwest. Steel*	205,164	22.3	(47,084)	(9.7)	(34,296)	(79.0)	(11.5)	(55.1)	(56.8)	(1.8)	(2.5)	(4.2)
Wheeling-Pitts.3	1,057,151	27.2	(254)	99.3	(59,376)	(9.8)	(0.7)	6.5	7.8	(1.9)	(5.6)	(2.7)
Inland Steel*	3,324,838	13.9	119,515	+	(41,366)	64.6	(0.2)	36.4	(45.2)	(2.0)	(3.4)	(1.5)
National Intergrp.	2,294,248	(23.3)	78,282	+	13,663	+	(10.6)	+	(98.6)	(5.7)	(9.7)	(3.1)
Keystone Cons.*	208,655	(36.9)	(6,807)	11.7	(3,973)	81.3	(11.6)	-	-	(7.3)	(10.6)	(2.6)
Armco*	4,543,100	9.1	15,000	+	(295,000)	56.1	(0.2)	(29.2)	(47.7)	(8.3)	(14.8)	(4.0)
Eastmet*2	238,908	(31.3)	(9,082)	55.8	(15,966)	13.5	9.9	-	-	(11.4)	(14.6)	(2.9)
Bethlehem Steel	5,392,100	10.1	(77,800)	71.2	(112,500)	31.2	(4.4)	(22.9)	-	(12.2)	(25.8)	(5.7)
Kaiser Steel*	151,281	10.1	(21,969)	18.4	47,688	+	(18.0)	(1.3)	-	(43.1)	(79.2)	(59.4)
Sharon Steel	897,527	9.3	18,658	(20.4)	(144,911)	-	13.3	(56.9)	(51.2)	(52.3)	(88.2)	(7.4)

NONFERROUS METALS

Companies ranked in order of five year average annual return on invested capital

	1984 (Dollars in thousands per company fiscal years)						Five Year Growth, Pct (Average annual growth over five latest fiscal years)					
Company	Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Phibro Salomon*	28,911,000	(2.8)	3,164,000	35.3	212,000	(54.9)	13.1	49.3	3.5	15.3	21.2	1.3
Brush Wellman*	322,595	31.4	71,845	50.2	41,539	61.6	14.9	19.9	32.4	12.1	14.2	9.9
Cabot Corp.	1,752,523	12.5	182,518	28.0	97,073	51.3	11.9	10.1	18.6	11.8	16.9	6.6
Freeport McMoran	842,163	7.1	169,651	18.8	94,150	0.7	11.8	11.1	7.0	10.2	16.4	15.2
Newmont Mining	770,081	6.8	(8,154)	(3.1)	41,034	(22.4)	(1.8)	(32.2)	0.0	10.7	-12.1	16.7
Fluor Corp *	4,401,130	(17.0)	72,016	(69.1)	1,008	(96.4)	6.9	(2.9)	(25.5)	6.7	8.8	1.7
Olin	2,065,328	6.8	124,376	35.2	88,747	23.7	3.2	11.9	27.4	5.9	8.3	3.5
Alcan Aluminum	5,467,000	5.0	561,000	60.7	253,000	+	5.0	16.6	+	5.7	8.2	4.1
Alcoa*	5,750,800	9.3	536,600	63.1	256,000	47.0	4.0	+ +	5.5	7.8	4.6	
Martin Marietta*	3,920,400	21.4	286,318	24.7	(191,764)	-	14.6	4.5	(44.7)	4.7	8.2	3.2

NONFERROUS METALS

Companies ranked in order of five year average annual return on invested capital

	1984 (Dollars in thousands per company fiscal years)						Five Year Growth,Pct (Average annual growth over five latest fiscal years)					
Company	Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Cominco Ltd.*#	1,585,292	15.3	93,640	+	24,179	+	5.0	+	(16.8)	3.5	5.0	2.6
Reynolds Metals*	3,728,300	11.6	229,200	+	137,300	+	3.1	-	-	2.7	4.5	1.7
Kaiser Aluminum	3,192,500	29.3	(2,400)	98.0	(53,900)	28.0	4.2	(47.1)	(32.7)	1.3	1.4	0.8
Asarco	1,325,129	(12.4)	(40,674)	-	(306,080)	-	(4.5)	-	-	(1.1)	(3.2)	(1.7)
Phelps Dodge	910,067	(6.9)	(99,401)	(47.5)	(267,846)	-	(5.2)	(92.9)	(34.2)	(3.5)	(6.0)	(6.5)
Amax	2,398,900	4.8	90,300	+	(238,300)	51.3	(3.3)	97.9	(53.1)	(3.8)	(6.4)	(4.6)
Inco Ltd.	1,468,000	25.1	11,900	+	(77,300)	67.1	1.3	(19.2)	(27.5)	(6.1)	(10.7)	(3.2)

MACHINE TOOLS

Companies ranked in order of five year average annual return on invested capital

	1984 (Dollars in thousands per company fiscal years)						Five Year Growth,Pct (Average annual growth over five latest fiscal years)					
Company	Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Monarch Machine	68,011	16.1	2,995	+	2,479	+	(2.7)	12.4	64.1	12.6	7.0	
Cross and Trecker	268,309	79.0	(495)	79.4	4,053	9.9	9.2	5.5	(7.3)	12.1	13.0	6.7
Ex-Cell-O Corp.*	1,141,058	19.6	84,602	37.5	56,872	14.2	4.0	1.8	1.6	11.0	12.5	5.0
Cincinnati Mil.	660,517	18.2	30,116	+	18,731	+	0.8	8.2	7.0	7.2	9.5	3.7
Brown and Sharpe ws	122,190	27.8	6,590	+	7,506	+	(3.3)	+a	+	1.9	2.2	0.2
The Gleason Works*	213,869	30.8	1,612	+	(655)	91.5	1.5	(14.7)	(31.5)	1.1	1.0	0.0
Acme-Cleveland*	212,843	23.2	(16,850)	17.7	(11,396)	64.4	(5.2)	(32.6)	(70.7)	(2.7)	(2.6)	(2.7)
Lodge and Shipley	18,136	17.8	(2,561)	24.9	(2,476)	(4.9)	(7.1)	(66.6)	(37.6)	(2.9)	(3.9)	(4.9)

MOTOR VEHICLES

Companies ranked in order of five year average annual return on invested capital

	1984 (Dollars in thousands per company fiscal years)						Five Year Growth,Pct (Average annual growth over five latest fiscal years)					
Company	Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
General Motors	83,889,900	12.5	4,700,000	(14.7)	4,516,500	21.1	5.6	+	+	6.8	7.9	2.2
Chrysler Corp.*	19,572,700	47.6	2,235,100	+	2,380,000	+	13.4	+	+	4.6	(27.9)	(1.1)
Ford	52,366,400	17.8	3,422,200	89.7	2,906,800	55.7	4.6	+	55.3	1.9	2.2	0.2
American Motors*	4,215,191	28.8	81,427	+	15,469	+	7.9	(46.4)	(49.0)	(19.3)	(45.0)	(4.9)

AUTOMOTIVE EQUIPMENT AND PARTS

Companies ranked in order of five year average annual return on invested capital

Company	1984 (Dollars in thousands per company fiscal years) Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Five Year Growth,Pct (Average annual growth over five latest fiscal years) Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Simpson Ind.*	130,467	41.3	9,692	+	5,595	+	3.5	+	+	10.3	12.2	3.4
Hoover Universal	845,502	8.8	63,016	8.8	36,701	13.1	7.8	6.3	13.1	9.4	13.8	3.7
Echlin Mfg. Co.*	688,971	22.1	76,510	35.3	43,820	42.6	18.4	23.7	30.1	8.5	11.0	4.6
Dana2	3,575,159	24.8	447,690	78.7	191,278	69.6	6.2	22.8	22.4	7.9	10.5	3.9
Arvin Inds.	781,986	30.2	56,277	71.1	30,226	64.8	10.7	19.9	24.4	6.1	8.4	2.7
Barnes Group Inc.*	498,092	12.7	42,966	25.0	18,123	+	3.1	2.2	+	5.1	6.1	1.8
Sheller-Globe*	816,415	34.4	60,832	92.1	34,826	+	9.1	80.7	10.7	4.2	6.5	1.8
Eaton Corp.*	3,509,800	31.3	405,700	+	254,400	+	4.9	40.5a	(12.3)	3.7	5.2	2.0
The Allen Group*	346,502	25.8	22,479	79.0	10,551	71.2	2.8	30.7	(5.4)	3.3	4.1	1.0
Fruehauf Corp.	2,788,200	30.9	182,244	+	85,222	+	4.1	60.8	+	2.3	4.1	0.9
A. O. Smith Corp.*	876,557	10.8	51,969	28.6	(43,161)	-	2.8	+	(66.7)	(3.3)	(5.4)	(1.1)
Hayes-Albion*	218,490	54.1	10,410	+	7,649	+	0.4	35.1	-	(4.7)	(7.1)	(2.5)

FARM AND CONSTRUCTION MACHINERY

Companies ranked in order of five year average annual return on invested capital

Company	1984 (Dollars in thousands per company fiscal years) Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Five Year Growth,Pct (Average annual growth over five latest fiscal years) Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Deere and Co.	4,399,168	10.9	72,795	+	104,944	+	(1.6)	+	39.9	4.3	5.7	2.6
Caterpillar Tractor	6,576,000	21.2	(113,000)	63.5	(428,000)	(24.1)	(1.0)	(13.5)	(45.9)	1.0	0.2	(0.6)
Hesston Corp.*	191,052	(3.5)	16,802	(25.3)	(4,478)	-	(2.8)	(2.1)	(3.1)	(1.5)	(3.1)	(0.6)
Clark Equipment Co.	1,238,179	43.6	36,802	+	24,971	+	(3.9)	80.6	-	(2.1)	(3.1)	(1.2)
Bucyrus-Erie Co.	407,254	(26.2)	13,834	+	8,151	+	(3.6)	0.3	-	(3.8)	(4.0)	(0.4)
American Hoist & D.	328,940	4.2	(7,421)	(65.7)	(13,923)	68.5	5.9	51.3	(48.6)	(4.4)	(7.9)	(3.1)
Massey-Ferguson2	1,468,600	(4.3)	62,200	+	7,200	+	(10.7)	-	-	(12.0)	(45.6)	(7.7)
International Har.*	4,802,397	33.4	178,135	+	(55,441)	88.6	(14.1)	(11.4)	(77.6)	(27.9)	-	(13.8)
Barber-Greene*	114,716	(0.7)	(8,524)	39.0	(22,970)	32.4	(11.0)	-	-	(30.4)	-	(9.1)

AEROSPACE

Companies ranked in order of five year average annual return on invested capital

Company	1984 (Dollars in thousands per company fiscal years) Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Five Year Growth,Pct (Average annual growth over five latest fiscal years) Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
General Dynamics*	7,839,000	9.7	663,300	32.3	381,700	33.2	15.2	24.8	25.0	19.6	20.0	3.6
Gulfstream Aero.25	598,639	12.8	97,148	(15.0)	26,977	(49.2)	37.9	57.3	62.6	16.3	31.2	6.4
United Aircraft Pr.	32,610	12.9	5,019	(7.6)	3,959	22.5	13.9	31.9	25.3	16.3	16.3	10.2
Boeing	10,354,000	(7.0)	356,000	7.2	787,000	+	8.4	(1.7)	20.5	16.1	17.4	5.0

AEROSPACE

Companies ranked in order of five year average annual return on invested capital

Company	1984 Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Five Year Growth,Pct Revenues	Operating Profits	Net Earnings	Return on Invested Capital	Return on Equity	Return on Sales
	(Dollars in thousands per company fiscal years)						(Average annual growth over five latest fiscal years)					
Rockwell Int.*	9,322,100	15.1	798,300	38.1	496,500	27.6	8.7	14.3	14.0	15.0	17.1	4.6
Northrop Corp.	3,687,800	13.1	243,400	73.2	166,900	65.7	18.8	(66.3)	+	12.7	13.8	3.1
Curtiss-Wright*	144,369	(20.0)	10,703	(23.7)	1,886	(89.8)	(2.7)	(7.1)	(8.8)	12.5	15.0	17.6
United Tech.	16,331,757	11.3	1,062,506	16.0	645,015	26.7	13.1	10.5	15.2	11.5	14.6	3.6
McDonnell Douglas	9,662,600	19.1	337,200	19.7	325,300	18.3	13.1	75.9	12.5	11.4	11.9	2.9
Grumman Corp.*	2,557,807	15.2	148,818	(7.7)	108,418	(2.1)	11.7	32.6	64.0	9.5	13.1	2.8
Baker Industries	613,933	7.9	95,846	43.7	37,763	56.5	9.9	19.5	+	8.6	11.7	3.0
Gates Learjet*	406,622	16.0	(7,868)	-	(10,626)	-	10.1	(36.2)	-	8.1	9.5	1.8
Fairchild Ind.	898,852	0.8	(3,312)	-	1,382	(95.1)	8.2	(28.2)	(22.7)	7.1	9.7	3.5
Aeronca Inc.*	44,292	1.0	4,661	16.9	4,058	6.9	(3.9)	+	+	6.2	12.0	3.6
Lockheed Corp.*	8,113,400	25.0	649,500	23.2	344,100	30.9	15.6	55.1	-	5.6	(17.9)	1.4
Cessna Aircraft Co.	693,586	32.3	(45,463)	30.4	949	+	(2.7)	-	(18.6)	5.1	5.4	1.5

APPLIANCES

Companies ranked in order of five year average annual return on invested capital

Company	1984 Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Five Year Growth,Pct Revenues	Operating Profits	Net Earnings	Return on Invested Capital	Return on Equity	Return on Sales
	(Dollars in thousands per company fiscal years)						(Average annual growth over five latest fiscal years)					
Maytag	642,561	7.6	111,567	2.8	63,141	4.0	12.5	12.6	10.1	20.8	22.3	9.6
Whirlpool Corp.	3,137,482	17.6	272,656	6.7	189,565	13.5	7.5	11.0	11.9	15.0	16.1	5.6
Magic Chef	1,054,282	39.8	106,277	+	54,623	+	22.6	70.7	80.0	7.6	10.8	2.6
Roper Corp.	571,644	18.8	39,980	51.5	17,846	55.8	8.5	15.0	28.1	6.9	10.5	1.9
Rangaire Corp.*	72,234	(18.1)	2,571	(7.2)	1,569	(44.3)	(1.5)	(2.9)	13.8	4.7	6.8	2.2

DIVERSIFIED METALWORKING

Companies ranked in order of five year average annual return on invested capital

Company	1984 Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Five Year Growth,Pct Revenues	Operating Profits	Net Earnings	Return on Invested Capital	Return on Equity	Return on Sales
	(Dollars in thousands per company fiscal years)						(Average annual growth over five latest fiscal years)					
United Industrial	246,156	9.8	24,349	10.0	18,533	10.7	11.5	13.7	21.8	19.6	20.3	6.4
Emerson Electric*	4,178,810	20.2	648,985	21.7	349,203	15.3	9.3	9.8	11.0	17.4	19.1	8.3
Embart*	1,794,500	6.5	174,800	14.9	90,400	7.2	2.9	11.5	9.8	13.6	16.1	4.5
Core Industries*	148,335	14.1	17,467	32.7	10,744	45.8	1.3	1.0	4.6	13.4	14.2	7.3

DIVERSIFIED METALWORKING

Companies ranked in order of five year average annual return on invested capital

	1984 (Dollars in thousands per company fiscal years)						Five Year Growth, Pct (Average annual growth over five latest fiscal years)					
Company	Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Vulcan Materials	982,877	19.8	131,492	72.6	78,421	34.8	6.1	10.2	6.5	13.1	16.0	8.4
Trinity Industries*	381,125	(20.1)	(3,965)	-	4,730	(71.3)	14.4	10.3	21.7	13.0	18.4	4.3
Sealed Power Corp.	900,085	17.8	64,686	19.9	41,300	42.2	12.9	16.5	27.5	12.6	14.3	6.9
Westinghouse*	10,264,500	7.7	610,000	27.7	535,900	19.4	6.8	9.1	+	12.6	14.6	4.8
General Signal	1,786,883	13.5	184,284	21.7	108,510	21.0	5.6	2.8	5.5	12.2	13.5	6.4
TRW	6,061,691	10.4	482,688	31.4	266,842	30.1	6.0	5.7	8.2	12.0	14.5	4.1
Lear Siegler Inc.	1,941,665	53.6	184,952	41.4	85,145	32.8	8.6	6.7	7.2	11.5	16.4	4.7
Sundstrand Corp.*	1,041,948	14.6	114,919	43.5	66,412	50.1	4.8	4.8	5.3	11.4	15.0	7.2
Whittaker	1,437,026	(10.3)	127,431	0.8	43,870	16.6	7.1	5.2	1.8	11.3	16.2	3.4
Worthington Ind.	577,779	28.5	61,099	37.4	28,453	43.2	17.2	14.2	13.9	11.1	18.4	5.0
Cooper Industries	2,029,915	9.7	229,954	36.1	106,864	50.2	4.3	2.7	5.7	10.9	12.9	6.5
Morrison-Knudsen	2,022,145	(6.6)	91,336	15.5	43,612	5.1	9.1	14.8	11.6	10.7	13.1	1.9
Borg-Warner*	3,915,600	10.5	332,700	30.8	206,100	12.9	7.6	11.5	7.4	10.7	12.5	5.1
Northwest Ind.*	1,431,900	7.1	197,600	20.8	77,500	+	(3.6)	16.8	31.4	10.3	16.0	7.2
KDI Corp.	234,925	16.6	20,616	20.5	8,368	23.1	4.6	16.4	13.1	9.3	16.7	3.0
Federal Mogul Corp.	911,718	22.1	108,772	53.3	48,385	17.8	7.2	8.9	5.3	9.0	13.4	4.8
Harsco	1,181,271	31.2	86,902	+	47,550	72.4	4.6	9.9	5.4	8.6	11.4	4.3
Coco Corp.	582,585	25.2	21,519	(6.2)	10,252	(12.7)	7.1	(11.9)	(3.7)	8.0	9.6	2.7
Figgie International*	720,666	12.2	49,721	25.9	17,413	(18.5)	1.3	4.7	1.4	7.3	12.3	3.1
The Signal Cos.*	6,005,000	(0.9)	330,000	+	285,000	+	8.5	57.5	22.6	7.3	9.3	3.8
Textron Inc.	3,221,100	8.1	200,500	30.7	113,500	28.0	1.3	(3.7)	3.1	7.1	8.6	3.3
Ogden Corp.*	2,136,675	23.7	81,894	10.5	39,549	(25.3)	(0.2)	(3.5)	(5.8)	6.9	13.5	2.9
The Duriron Co.	139,651	12.9	1,608	(70.6)	(2,183)	-	2.6	(32.2)	(50.7)	6.6	7.9	3.7
Eagle-Picher	643,929	24.6	60,315	79.6	28,142	83.4	3.4	6.9	7.2	6.4	8.5	3.2
Franklin Electric	188,157	11.7	8,649	6.4	6,712	21.5	7.1	+	+	6.3	8.5	2.6
Park-Ohio Ind.	195,314	37.5	10,463	+	5,739	+	3.8	9.5	4.5	6.0	7.8	3.4
Timken	1,149,908	22.7	54,986	+	46,057	+	(0.6)	+	+	5.7	6.0	3.6
Interlake*	845,087	10.7	73,371	56.2	36,551	60.1	(4.0)	64.1	88.2	5.5	7.4	2.8
AMF*	1,095,271	12.9	38,155	+	14,872	+	(0.4)	+	+	4.1	5.6	2.2
Allegheny Intl.*	2,115,276	(9.9)	151,392	82.1	14,918	(47.3)	27.4	28.7	(17.1)	3.7	6.7	2.5
Kaiy Ind.	431,517	7.2	13,241	(49.2)	(36,662)	-	11.8	(7.2)	(76.9)	3.6	3.9	2.8
Koppers*	1,816,646	16.0	54,418	14.7	28,766	(6.0)	0.5	(8.0)	(8.7)	2.7	3.7	1.4
Salem Corp.*	75,053	36.8	(91)	98.1	838	+	4.4	(37.0)	83.7	1.8	2.0	0.2
Dravo Corp.*	844,911	4.3	(19,053)	-	(20,110)	(38.2)	(1.2)	(81.1)	(85.8)	(0.6)	(0.6)	(0.3)
Cleveland-Am.*	865,646	2.9	39,872	30.2	(4,628)	89.0	(10.1)	(10.1)	(86.1)	(1.5)	(3.1)	(1.2)
Condec*	248,016	(1.2)	22,252	+	(14,659)	-	0.7	(1.7)	-	(3.0)	(21.2)	(1.8)
Valley Industries*	114,679	34.5	(2,507)	57.0	(26,534)	-	3.8	6.0	(46.8)	(9.3)	(17.1)	(5.4)
NVF Co.	1,276,460	27.7	39,233	47.9	(146,520)	-	17.0	(25.5)	-	(24.1)	(72.8)	4.9

METALS FABRICATION AND METAL PARTS

Companies ranked in order of five year average annual return on invested capital

1984

(Dollars in thousands per company fiscal years)

Five Year Growth,Pct

(Average annual growth over five latest fiscal years)

Company	Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Raytheon*	5,995,672	6.5	419,021	8.6	243,242	(19.0)	6.9	4.6	1.2	17.1	17.9	5.4
Snap-On Tools Corp.	539,933	18.7	99,475	38.3	59,629	38.8	7.8	7.7	8.3	16.5	18.3	9.6
Teledyne*	3,494,300	17.3	300,700	5.2	574,300	88.5	5.7	(3.4)	16.1	16.1	24.6	12.1
Wyman-Gordon	425,459	11.0	59,467	(23.0)	35,362	(24.3)	1.9	15.8	18.8	15.2	16.9	9.4
Illinois Tool Works	592,253	19.0	93,816	37.6	60,004	21.0	8.6	8.8	8.4	14.7	15.1	9.9
Stanadyne	470,737	25.6	62,169	52.6	33,525	52.0	3.9	26.6	23.7	11.9	14.0	5.3
Baldor Electric Co.	183,716	23.6	16,687	26.2	9,740	25.6	6.1	0.9	3.0	11.8	13.9	6.0
Fleetwood Ent.*	1,420,418	65.5	111,902	+	63,917	+	19.7	+	+	10.2	10.2	1.7
Masco Corp.	1,019,730	(3.7)	201,120	7.1	115,880	8.7	7.5	7.8	9.7	10.2	16.4	10.5
Regal-Beloit Corp.*	57,995	32.1	8,049	55.5	4,186	66.8	9.6	13.9	17.0	10.2	14.3	6.0
Vermont American*	225,895	18.0	30,084	38.6	17,145	21.6	7.1	15.0	22.7	10.0	13.4	5.6
Precision Castparts	93,866	8.3	5,517	(39.8)	3,836	(20.7)	12.8	10.3	18.6	9.1	15.4	4.8
Commercial Metals	1,170,896	36.6	16,293	47.4	9,701	20.0	2.6	(7.1)	(5.5)	8.8	10.6	1.0
Commercial Shearing	204,849	21.4	19,154	+	12,693	+	(2.9)	45.1	30.5	8.8	9.3	4.7
Kennametal Inc.	319,343	18.0	25,205	+	11,960	+	6.1	87.7	67.1	8.7	9.8	5.5
Coachmen Ind.*	521,268	8.9	22,159	(45.9)	14,742	(37.0)	30.5	+	+	7.9	8.7	1.0
SPS Technologies*	266,221	25.5	15,497	+	9,824	+	1.2	13.8	+	7.8	10.3	3.8
Outboard Marine*	921,572	16.9	99,333	16.3	52,736	34.3	4.9	43.5	+	7.1	9.3	3.8
Stewart-Warner	290,364	9.5	15,971	88.4	11,663	+	(4.2)	(6.6)	2.0	6.7	6.7	3.7
Moog*	196,859	18.3	21,397	25.3	7,441	+	12.1	13.9	+	5.7	10.1	4.3
Chicago Rivet	29,732	12.0	2,387	+	1,520	88.8	(3.1)	9.3	+	4.9	5.2	2.8
Nortek Inc.*	506,179	51.9	47,052	67.3	16,900	+	38.3	43.2	51.4	4.9	10.8	3.1
Black and Decker*	1,532,883	31.3	154,225	68.0	95,404	+	6.4	4.8	5.1	4.8	6.3	2.9
Elco Industries	100,109	39.5	10,645	+	4,982	+	3.7	27.4	47.9	4.8	7.1	2.5
Bundy Corp.	192,913	23.7	13,391	+	7,744	+	3.6	+	+	4.7	6.7	2.5
Hi-Shear Ind.*	51,616	(0.5)	5,043	17.1	(2,915)	69.1	(2.3)	(10.2)	(32.0)	4.7	5.8	2.4
NL Industries*	1,360,119	0.4	28,975	+	(141,128)	(31.4)	1.5	39.3	(18.1)	4.4	6.2	2.7
Champion Home	352,881	28.5	11,360	+	7,332	51.3	4.7	+	88.3	4.3	3.8	0.5
Easco Corp.*	571,226	12.0	6,168	(70.2)	(9,002)	-	11.2	4.1	(3.4)	4.1	6.3	1.4
Anadite	57,187	31.1	(2,529)	25.4	(520)	46.1	(2.9)	(98.1)	(17.9)	4.0	4.9	1.4
Quanex Corp.	398,314	33.9	24,277	+	1,979	+	14.8	60.1	29.9	3.1	0.9	0.7
Cameron Iron Works	515,544	(46.1)	(42,655)	-	(178,645)	-	4.3	(16.5)	-	2.8	3.1	0.4
Fischer and Porter	158,803	(3.9)	9,592	(16.1)	4,791	+	(0.5)	14.5	+	2.3	3.1	1.0
Russell, B. & W.*2	163,290	18.4	10,044	+	17,643	+	4.2	+	+	1.8	1.6	0.6
Chicago Pneumatic*	411,020	13.9	31,857	+	16,572	+	(1.4)	71.5	(2.4)	0.4	0.3	0.1
National Standard*	280,752	22.0	10,721	+	7,496	+	(2.4)	+	(50.2)	0.2	8.7	0.0
Acme Precision Pr.	33,841	27.0	764	(51.4)	148	(4.5)	+	86.9	19.4	0.1	1.2	4.6
Amcast Industrial	269,280	54.9	22,649	+	10,003	88.0	11.6	94.4	(95.3)	(0.9)	(2.2)	(0.5)
Toro*	280,249	16.3	16,971	+	8,306	+	(1.9)	15.3	+	(1.5)	(3.2)	(1.0)
GF Business Equip.*	183,130	34.3	(2,705)	(35.8)	(10,148)	-	3.5	-	(22.3)	(2.3)	(7.0)	(1.2)
Keystone Consol.*	208,655	(36.9)	(6,807)	11.7	(3,973)	81.3	(11.6)	-	-	(7.4)	(10.7)	(2.6)

METALS FABRICATION AND METAL PARTS

Companies ranked in order of five year average annual return on invested capital

	1984 (Dollars in thousands per company fiscal years)						Five Year Growth,Pct (Average annual growth over five latest fiscal years)					
Company	Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Lamson and Sess.*	138,904	39.5	3,978	+	142	+	(6.2)	(96.4)	(66.8)	(29.1)	-	(15.1)

GENERAL INDUSTRIAL MACHINERY

Companies ranked in order of five year average annual return on invested capital

	1984 (Dollars in thousands per company fiscal years)						Five Year Growth,Pct (Average annual growth over five latest fiscal years)					
Company	Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Newcor*	83,188	17.0	4,717	(25.4)	3,160	11.1	10.6	2.3	11.3	15.3	18.1	4.6
The Gorman-Rupp Co.	68,028	4.8	9,278	8.3	6,685	23.2	3.3	3.1	5.5	14.9	14.9	8.8
Briggs and Stratton	671,193	9.3	62,382	14.8	34,736	9.4	3.6	2.1	1.4	14.3	14.3	5.5
Foster Wheeler*	1,326,859	(13.9)	33,358	(44.4)	35,374	(20.0)	(4.1)	(10.7)	(4.3)	14.1	15.6	3.3
Goulds Pumps Inc.	286,615	4.1	29,922	14.3	20,149	39.9	4.9	(1.5)	4.7	13.8	18.4	7.0
Combustion Eng.	3,057,520	(1.1)	75,347	1.1	99,570	+	2.9	(6.9)	+	12.8	13.9	3.1
Zurn Industries	338,180	(9.4)	18,330	(37.3)	11,025	(44.5)	2.4	(1.9)	(0.5)	11.3	14.3	4.7
Parker-Hannifin*	1,304,817	20.1	134,846	+	71,499	+	8.4	+	18.4	9.8	13.0	4.9
Joy Manufacturing*	675,996	7.6	47,181	20.2	32,945	+	0.2	(0.8)	+	9.7	11.1	5.5
The Oilgear Co.	35,200	21.3	2,838	88.6	2,835	+	2.6	4.8	25.0	9.5	10.1	6.0
Amsted	626,473	27.8	38,211	+	24,200	+	(4.1)	31.7	+	8.7	8.7	4.0
Colt Industries*	1,868,267	18.5	240,919	41.2	132,229	33.2	(1.6)	6.1	(10.5)	8.1	10.5	2.9
FMC Corp.	3,337,839	(4.6)	300,233	49.9	37,968	(77.5)	0.3	12.0	(13.1)	7.6	9.8	3.7
Cummins Engine	2,325,819	44.9	293,042	+	187,944	+	7.7	+	+	7.0	9.9	2.8
Twin Disc Inc.*	115,412	27.7	4,043	+	3,152	+	(2.6)	7.1	6.3	5.9	7.0	2.4
Penna. Eng. Corp.	125,260	(10.3)	(5,579)	-	(1,310)	-	(4.8)	-	(24.0)	5.4	9.5	2.8
Prab Robots Inc.2	18,435	(3.5)	(508)	-	(491)	-	16.9	-	-	4.6	4.7	1.2
Rexnord	921,053	14.5	62,094	+	28,226	+	(1.0)	1.4	91.6	4.3	6.1	2.3
Ingersoll-Rand	2,478,120	9.0	177,621	+	58,895	+	0.8	34.2	(41.4)	3.9	5.6	2.1
White Consol.*	1,905,738	3.1	80,615	(28.2)	(79,334)	-	(0.3)	(6.8)	(51.0)	2.9	4.4	1.2
Portec*3	132,481	16.2	4,684	+	(3,340)	12.5	(9.6)	(27.3)	(92.2)	2.1	2.9	0.4
GATX Corp.	847,300	(0.2)	176,600	11.0	36,700	+	(0.1)	0.7	(66.2)	1.3	3.6	1.8
Crane Co.	792,212	2.7	50,572	97.6	30,965	+	(11.3)	24.4	-	(0.4)	(1.1)	(0.9)
Wean United	105,474	(13.0)	(12,839)	17.3	2,881	+	(9.9)	-	+	(8.7)	(17.5)	(4.5)
Harnischfeger*	398,708	24.2	11,296	+	15,176	+	(3.8)	9.7	+	(9.3)	(11.8)	(3.8)
Selas Corp. of Am.	35,586	58.3	1,037	+	1,414	+	(4.3)	(82.0)	-	(14.9)	(15.4)	(2.5)
Allis-Chalmers*	1,326,362	2.0	(15,306)	72.0	(260,954)	(95.9)	(7.0)	(73.4)	-	(51.2)	(68.4)	(8.4)
Fared Robot Syst.24	16,151	62.5	(3,684)	8.2	(3,202)	(7.5)	+	-	-	(55.8)	-	(73.8)

HEAVY STRUCTURAL FABRICATION

Companies ranked in order of five year average annual return on invested capital

	1984 (Dollars in thousands per company fiscal years)						Five Year Growth,Pct (Average annual growth over five latest fiscal years)					
Company	Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Todd Shipyards*	622,314	(21.0)	27,635	(28.5)	21,869	(27.5)	11.4	11.9	17.2	17.7	26.0	3.9
CBI Industries*	899,971	8.6	29,273	+	38,657	(12.4)	10.0	88.0	(3.6)	14.4	15.4	7.2
McDermott Int.*	3,088,583	(16.7)	120,883	(32.5)	120,856	+	1.6	13.8	37.3	6.4	9.1	2.8
American Ship.* ws	117,264	81.3	(99)	98.2	4,825	+	8.2	33.8	46.5	6.3	9.3	1.9
Ampco Pittsburgh*	415,653	76.7	13,421	+	5,755	+	17.1	18.1	79.3	3.2	4.9	1.0
Richmond Tank Car	31,363	40.0	(4,219)	62.3	(31,684)	6.1	(2.3)	-	(74.2)	(60.0)	(62.6)	(51.2)

MINING AND METALS PROCESSING

Companies ranked in order of five year average annual return on invested capital

	1984 (Dollars in thousands per company fiscal years)						Five Year Growth,Pct (Average annual growth over five latest fiscal years)					
Company	Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Englehard Corp.	2,510,974	19.6	100,324	(1.3)	46,317	(37.0)	9.9	7.5	2.3	14.1	15.7	2.7
Homestake Mining*	289,203	(3.5)	4,428	(84.4)	29,158	(48.6)	7.8	18.5	7.0	13.8	14.1	17.6
Handy and Harman	619,507	7.6	44,990	24.3	14,156	33.4	1.1	3.9	16.3	8.8	13.7	2.6
Cleveland-Cliffs	389,000	25.2	38,000	+	28,600	+	5.2	60.7	+	5.1	5.5	4.3
Hanna Mining Co.	199,574	29.9	(7,319)	37.3	7,652	+	(9.0)	-	(21.4)	(1.1)	(1.4)	(8.9)

AUTOMATION EQUIPMENT, FACTORY AND OFFICE

Companies ranked in order of five year average annual return on invested capital

	1984 (Dollars in thousands per company fiscal years)						Five Year Growth,Pct (Average annual growth over five latest fiscal years)					
Company	Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Schlumberger	5,978,552	8.4	1,333,439	9.3	1,182,073	9.0	12.0	9.2	14.8	22.6	24.4	20.8
Intergraph*	403,762	60.2	108,524	+	62,936	+	69.1	89.7	92.6	19.9	22.7	10.6
IBM*	45,937,000	14.3	11,231,000	17.1	6,582,000	20.0	15.0	16.7	17.1	19.7	22.3	13.2
3M	7,705,000	9.5	1,286,000	12.9	733,000	9.9	7.3	2.5	3.0	17.3	18.9	10.0
General Electric*	27,947,000	4.3	2,845,000	11.6	2,280,000	12.6	4.6	6.1	10.1	16.5	18.1	7.0
Hewlett-Packard*	6,044,000	28.3	860,000	18.1	665,000	53.9	20.9	16.9	27.6	16.3	16.7	9.3
Litton*	4,605,744	16.3	381,390	14.5	313,380	35.3	3.2	4.3	14.2	16.2	18.8	6.7
E-Systems	819,353	(0.9)	96,782	15.5	61,109	10.6	16.5	26.6	34.1	16.1	17.5	5.2
Automatic Switch	183,927	14.8	35,729	28.3	21,507	25.3	8.7	8.6	8.5	15.4	15.4	11.6
Computervision	556,342	39.1	73,701	44.0	41,441	17.3	41.9	28.7	28.9	15.2	18.6	10.0
Ametek	503,926	12.4	61,812	15.1	42,697	13.1	5.3	7.6	14.7	14.6	19.1	6.9
Square D Co.*	1,365,504	19.3	201,552	58.4	106,153	68.7	10.8	12.9	12.5	14.0	17.8	7.5
Reim Corp.	659,704	31.2	26,499	(51.0)	37,731	6.2	41.0	9.2	27.4	13.8	17.8	7.5
Sanders Assoc.	746,138	29.1	70,383	39.5	43,296	16.9	36.5	29.5	23.4	12.5	14.1	6.2
Wang Labs	2,184,700	42.0	287,800	33.6	210,200	38.3	47.3	39.7	49.9	12.1	19.1	9.5

AUTOMATION EQUIPMENT, FACTORY AND OFFICE

Companies ranked in order of five year average annual return on invested capital

	1984 (Dollars in thousands per company fiscal years)						Five Year Growth,Pct (Average annual growth over five latest fiscal years)					
Company	Revenues	Pct. Change From 1983	Operating Profits	Pct. Change From 1983	Net Earnings	Pct. Change From 1983	Revenues	Operating Profits	Net Earnings	Return on Invested Captial	Return on Equity	Return on Sales
Esterline	260,595	29.2	34,415	+	18,037	+	5.8	16.5	22.8	12.0	16.7	6.5
NCR Corp.	4,074,327	9.2	523,071	9.6	342,640	19.1	6.3	6.1	9.0	11.9	13.8	7.3
Perkin-Elmer Corp.	1,182,256	16.4	97,434	25.0	66,088	31.5	11.0	5.2	11.1	11.6	14.0	6.1
Motorola	5,534,000	27.9	500,000	50.2	387,000	58.6	14.2	11.9	20.1	11.0	13.6	5.6
Harris*	1,195,802	10.3	88,139	(3.9)	80,410	15.9	14.8	(4.5)	5.7	10.5	14.5	5.9
Digital Equipment	5,584,426	30.7	394,569	8.7	328,779	15.9	25.7	11.0	16.6	10.4	11.5	8.9
Gerber Scientific*	173,593	48.1	25,952	+	14,677	+	32.8	48.9	59.0	10.3	17.3	6.5
General Instrument	993,848	9.1	4,580	(90.8)	(9,600)	-	7.1	(21.1)	(22.5)	10.2	11.0	6.2
Honeywell*	6,073,600	7.2	454,900	19.8	239,000	3.4	7.8	3.0	(0.8)	9.4	12.1	4.8
Paradyne Corp.*	289,981	38.8	19,273	+	11,048	+	49.8	+	71.3	8.8	9.9	8.5
Courier	154,284	9.3	11,695	(17.9)	13,013	86.3	6.7	0.5	98.1	8.7	11.4	5.4
North American P.*	4,325,900	13.8	265,500	34.0	130,500	36.4	18.2	12.0	13.6	8.3	11.9	2.9
Data General	1,160,815	40.0	102,625	+	83,256	+	18.8	24.0	41.0	8.2	11.0	5.7
Datapoint Corp.	600,154	11.1	51,453	+	28,182	+	21.8	73.1	93.6	7.7	9.2	5.6
Foxboro Co.	515,856	(3.2)	3,101	(42.2)	4,272	(46.4)	2.3	(20.7)	(38.3)	7.6	8.1	4.3
Sperry Corp.	4,914,000	5.4	434,100	28.5	216,200	83.1	3.7	0.0	8.7	7.6	9.8	4.5
ITT Corp.*	12,700,988	1.7	660,250	(20.8)	448,046	(35.6)	(5.5)	(8.6)	21.3	7.1	10.4	4.4
Coherent*	111,406	22.0	8,936	84.6	12,932	+	16.5	82.7	+	6.5	7.4	3.9
CTS Corp.*	327,208	37.2	46,891	+	(2,582)	-	12.7	34.1	(27.4)	6.5	6.6	3.7
GenRad*	249,451	10.1	9,361	(63.0)	10,990	(44.0)	16.2	6.7	+	6.4	7.6	4.7
Cognitronics	14,678	7.9	(1,017)	-	(1,859)	-	13.2	29.0	(30.9)	6.2	6.2	2.3
Gould Inc.*	1,399,400	4.8	104,200	3.5	17,800	(72.2)	11.8	7.7a	(22.4)	6.1	8.3	6.2
Gulton Ind.*	148,033	0.4	11,571	15.9	4,249	(18.5)	(0.6)	13.1	13.2	6.0	7.8	2.3
Ransburg*	164,601	25.4	2,135	(40.9)	(4,938)	-	13.0	(17.0)	-	5.8	6.5	4.4
Research-Cottrell	400,878	3.8	9,517	+	5,275	+	8.0	52.3	27.2	5.7	7.6	1.9
Burroughs Corp.	4,808,300	11.9	421,000	29.6	244,900	24.4	11.8	20.6	15.8	5.5	7.2	4.0
Kyser Industrial*	158,237	33.3	17,368	+	9,356	+	9.0	74.5	+	5.5	8.3	2.8
GTE Corp.*	14,547,344	12.4	2,907,007	11.5	1,215,118	17.7	10.3	9.7	14.5	5.4	12.2	6.7
McGraw-Edison*	1,720,900	16.9	178,900	46.4	10,800	(67.7)	10.3	9.7	(21.2)	4.5	8.3	2.5
CompuDyne*	90,597	14.3	4,529	1.1	218	(71.4)	9.3	6.1	(26.4)	4.1	10.6	1.3
Mark Controls Corp.	280,383	4.3	3,446	(43.9)	(5,815)	-	3.9	(18.5)	(44.7)	2.4	3.4	1.0
Control Data Corp.*	3,755,500	7.1	147,800	(37.1)	31,600	(80.5)	11.0	(0.6)	(10.1)	2.2	8.2	4.2
Mohawk Data Sd.*	402,465	10.7	(2,132)	-	(52,964)	-	13.8	(23.7)	-	1.5	(0.5)	1.2
Apollo Computer5	215,930	+	39,268	+	23,908	82.1	+	+	+	(2.0)	(3.2)	(14.7)
Medcomp	78,497	4.7	4,615	+	3,289	+	2.5	(79.0)	-	(6.1)	(6.9)	(3.9)
Automatix5	20,058	54.2	(15,451)	-	(14,193)	-	+	-	-	(32.1)	(32.1)	(98.6)
Compucorp*	24,610	(35.7)	(15,182)	-	(16,750)	-	43.6	62.4	(62.6)	(49.1)	(50.5)	(14.0)

*Discrepancies in figures from one source to another
Canadian dollars
-Percent over 99.9% (negative) +Percent over 99.9% (positive)
aAverage for less than 5 years due to missing or conflicting information
2 Differences in fiscal years
3 Used total revenues figures to be consistent between sources
4 Company founded in 1981 5 Company founded in 1980
Sources: Company annual reports and 10 K's, and Moody's Manuals
Definitions: Revenues includes Net Sales, Operating Revenues, and Service Revenues

Operating Profits equals Revenues minus the sum of: Cost of Sales, Depreciation, and Selling, Administrative and General Expenses. Research and Development Expenses are also reflected in Operating Profits
Return on Invested Capital equals Net Earnings divided by the sum of: Shareholders' Equity and Long Term Debt. Long Term Debt includes Capitalized Leases
Return on Equity equals Net Earnings divided by Shareholders' Equity
Return on Sales equals Net Earnings divided by Revenues
Shareholders' Equity includes Common and Preferred Stock, Paid In Capital, and Retained Earnings, but not Minority Interest in Unconsolidated Subsidiaries
Financial Analysis by The Research Assistant, Wayne, Pa.

2ND QUARTER EARNINGS
STEEL HANGS ON; NONFERROUS SLIPS

BY GEORGE J. MCMANUS AND ROBERT REGAN

Despite lower volume and prices, 15 out of the 20 largest domestic steel producers made money in the second quarter, but sluggish growth held many of the nonferrous companies in check.

Steel

The steel industry showed a growing potential for prosperity in the second quarter.

With volume and prices down, 15 out of the 20 largest mills made money. This showing reflected the drastic cost cutting of the last three years.

If prices and shipments ever improve even a little bit, the new cost base should produce a dramatic surge in steel profits. Unhappily, the prospects for improvement were dim as steel producers moved through the third quarter. Demand for steel didn't collapse as it did last summer, but there was no sign, either, of the pickup that had been cranked into most projections.

There was still hope that the voluntary restraint program of the Reagan Administration would reduce steel imports, but there was nothing in market reports or government data to suggest a downturn was near.

In this setting, steel producers weren't relying on external factors for their survival. Predicting second half profits, David M. Roderick, chairman of United States Steel Corp., spoke of "further improvements in operating efficiencies."

In the second quarter, U.S. Steel had an overall net profit of $133 million and an operating profit of $85 million in steel. "Despite a market characterized by severe price competition," said Mr. Roderick, "steel and related resources achieved an operating income of $25 a ton."

Mr. Roderick cited this margin in responding to charges that U.S. Steel was the prime mover in the price cutting. "If we were really cutting price," he said, "that means our price would be below our competition. If our prices were below our competition, logically, we would not be making as much money as our competition.

"In the second quarter," continued Mr. Roderick, "our profit margins per ton were higher than any steel company that has reported profits for this quarter.... I think you should look at some of those companies that are reporting massive losses."

The industry's most massive loss in the second quarter was $472 million for LTV Corp. This included a charge of $400 million from the idling of facilities at Aliquippa, Pa. LTV's operating loss on steel was down from the first quarter of 1985, but it was still nearly $40 million.

LTV clearly must do something about the flow of red ink. The proposed sale of the company's stainless operation will relieve cash pressures but will subtract a profit source. Recent months have seen a shrinking of the Cleveland headquarters staff.

The big success story in the second quarter was Armco, Inc. Armco went from a loss of $14 million in the second quarter of 1984 to a net profit of $18.5 million in the second quarter of 1985. Like LTV, however, Armco was in the position of reducing debt by selling off profitable divisions. Up for sale was the aerospace and materials group, which earned $11.6 million in the second quarter.

Bethlehem Steel Corp. kept its head above water in the second quarter. Net earnings of $20 million were down from the second quarter of 1984 but up from a loss of $62 million in the first quarter of 1985. There was an inventory profit of $8 million in the second quarter and a benefit adjustment worth $7 million.

"It is likely that we will be unprofitable both for the third quarter and for the year," said Donald H. Trautlein, chairman of Bethlehem.

Mildly surprising was the net loss of $21 million for National Steel Corp. in the second quarter. National specializes in sheet products and these have been the strongest grades in the steel line-up. National Intergroup, Inc., which owns 50 pct of the steel company, continued to be plagued by stockholder agitation.

Inland Steel Co. had a net loss of $29 million in the second quarter, but this was due to non-recurring charges. Inland's operating profit was $25 million. A grim note was sounded when the company said its earlier plans to dismiss 700 salary people had been expanded to more than 1,000.

Weirton Steel Corp. continued its impressive showing in the second quarter. The nation's largest employee-owned company earned $20 million. This was down from $22.8

(Cont. on p. 88.)

STEEL: MOST STILL IN THE BLACK

SECOND QUARTER PROFIT REPORT—1985 (In Millions of Dollars)

		EARNINGS			SALES		
	1985 E/S	2nd Q 1985	2nd Q 1984	Pct Change	2nd Q 1985	2nd Q 1984	Pct Change
USS	2.6	133.0	140.0	-5.0	5,078.0	4,881.0	+4.0
LTV	—	(472.3)	(22.7)	—	2,120.0	1,580.0	+34.0
BETHLEHEM	1.5	20.4	24.0	-15.0	1,323.0	1,505.1	-12.0
ARMCO	1.9	18.5	(14.1)	—	994.2	1,063.9	-7.0
INLAND	—	(29.6)	22.4	—	790.3	860.0	-8.1
NATIONAL	—	(21.6)	(21.8)	—	547.7	604.8	+9.4
TOTAL	—	(351.6)	127.8	—	10,853.2	10,494.8	+3.4
CYCLOPS	2.7	9.0	5.5	+64.0	338.4	317.1	+6.7
WEIRTON	6.8	20.3	22.8	-11.0	297.2	306.3	-3.0
WHEEL-PGH.	—	(50.1)	5.3	—	245.6	297.1	-12.0
INTERLAKE	3.7	7.7	10.2	-25.0	209.1	220.7	-5.3
NUCOR	6.3	12.2	9.2	+33.0	193.7	169.0	+15.0
CARPENTER	1.8	2.6	12.8	-80.0	144.5	162.9	-11.0
LUKENS	1.0	1.1	3.1	-65.0	111.6	114.0	-2.1
COPPERWELD	0.2	0.2	3.9	-96.0	97.7	124.4	-22.0
QUANEX	5.2	4.1	3.5	+17.0	78.7	106.5	-26.0
FLORIDA	3.5	2.6	0.9	+177.0	74.7	72.1	+3.6
CF&I	3.0	2.1	3.4	-37.0	69.3	89.9	-23.0
EASTMET	—	(4.0)	1.3	—	59.4	69.0	-14.0
LACLEDE	2.8	1.7	2.2	-25.0	58.9	59.3	-0.6
PHOENIX	0.9	0.3	(0.7)	—	31.9	32.6	-2.3

NONFERROUS: TOUGH TIMES FOR ALUMINUM

SECOND QUARTER PROFIT REPORT—1985 (In Millions of Dollars)

	NET INCOME			SALES AND OTHER REVENUES		
	2nd Q 1985	2nd Q 1984	Pct Change	2nd Q 1985	2nd Q 1984	Pct Change
ALCAN	$(5.0)	$98.0	—	$1,493.0	$1,478.0	+1.0
ALCOA	40.6	112.8	-64.0	1,365.8	1,452.3	-6.0
ALUMAX	12.0	39.4	-69.5	489.0	514.0	-4.9
AMAX	(394.9)	9.8	—	522.6	651.4	-19.8
ASARCO	(20.9)	(28.6)	—	305.9	357.2	-14.4
BRUSH WELLMAN	7.3	10.7	-31.8	72.2	84.6	-14.7
CABOT	14.8	26.5	-44.3	513.7	468.3	+9.7
ECHO BAY MINES	3.0	5.1	-41.2	25.0	20.4	+22.5
ENGELHARD	10.3	18.4	-44.0	479.8	606.0	-20.8
FALCONBRIDGE COPPER	(1.0)	1.0	—	52.3	44.6	+17.3
FALCONBRIDGE LTD.	15.0	8.4	+78.6	245.1	187.7	+30.6
FREEPORT MCMORAN	20.6	25.9	-20.5	405.6	420.5	-3.5
HECLA MINING	1.6	22.9	-93.0	23.3	33.1	-29.6
HOMESTAKE MINING	9.2	5.9	+55.9	94.0	81.4	+15.5
INCO	20.9	(15.1)	—	408.0	385.0	+6.0
KAISER ALUMINUM	(14.3)	32.5	—	878.3	822.0	+6.8
NEWMONT MINING	17.8	12.6	+41.3	171.2	173.1	-1.1
NORANDA	(14.4)	21.4	—	942.2	920.6	+2.3
OLIN	15.8	33.0	-52.1	462.4	481.3	-3.9
PHELPS DODGE	11.4	(20.7)	—	232.7	246.0	-5.4
PINE POINT	0.8	8.3	-90.4	31.1	37.8	-17.7
REVERE COPPER	6.5	(37.1)	—	114.8	154.4	-25.6
REYNOLDS METALS	4.9	37.3	-86.9	921.5	1,003.1	-8.1
SHERRITT GORDON	10.0	3.3	+203.0	147.9	124.6	+18.7
VESTGRON MINES	1.4	(2.4)	—	17.7	1.8	+883.3
VULCAN MATERIALS	25.6	25.6	—	264.6	259.2	+2.1

Alcan Aluminium, Ltd.: Net loss includes $8 million tax benefit from tax-loss carryforward and $37 million charge and $66 million pre-tax charge related to cost of restructuring program. **Aluminum Co. of America:** Net for the 1985 period includes a net charge of $15.6 million from settlement of litigation related to a subsidiary. **Amax, Inc.:** Net loss for the 1985 period includes $350 million provision for losses on properties and investment, including a Louisiana nickel plant, Arizona and New Jersey copper facilities and further write-downs of agricultural chemicals business. Net income for the 1984 period includes $5.6 million tax benefit from tax-loss carryforward and $20.7 million gain on sale of coal and gas interests. **Asarco, Inc.:** Net loss for the 1984 period includes a pre-tax charge of $38 million relating to decision to close the Tacoma, Wash., smelter. **Falconbridge Copper:** Canadian funds. **Falconbridge, Ltd.:** Canadian funds. Net income for the 1984 period excludes $16.2 million gain on the sale of investment and $7 million tax benefit from tax-loss carryforward. **Hecla Mining Co.:** Net income for the 1984 period includes $24.1 million gain on sale of property and $2.4 million tax benefit from tax loss carryforward. **Kaiser Aluminum and Chemical Corp.:** Net for the 1984 period includes $3.3 million loss from discontinued operations. **Newmont Mining Corp.:** Net for the 1985 period includes $8.7 million from discontinued operations and a $676,000 tax benefit from a tax-loss carryforward. Net for the 1984 period includes $370,000 profit from discontinued operations. **Noranda Inc.:** Canadian funds. **Olin Corp.:** Net income includes $2.1 million gain in 1985 period and $3.4 million gain in 1984 period from discontinued operations. **Phelps Dodge Corp.:** Net for 1985 period includes $4.6 million tax benefit from tax-loss carryforward. Net for the 1984 period includes $100,000 loss from discontinued operations. **Pine Point Mines, Ltd.:** Canadian funds. **Revere Copper & Brass Inc.:** Net for 1985 period includes $1.96 million benefit from tax loss carryforward. Net for 1984 period includes a $4.39 million charge related to a reversal of tax benefit and $51.7 million provision for settlement of claims in Chapter 11 reorganization. **Reynolds Metals Co.:** Net income for 1985 period includes a $1.3 million tax benefit from tax-loss carryforward. Net income for 1984 period includes a $3.2 million charge relating to a bauxite mine closing. **Sherritt Gordon Mines Ltd.:** Canadian funds. **Vestgron Mines Ltd.:** Canadian funds.

million in the second quarter of 1984, but it was up from $10 million in the first quarter of 1985.

With its big share of the tinplate market, Weirton was one of the few steel companies to be enjoying a brisk summer. "We see the third quarter as the key to another good year for us," said Robert L. Loughhead, chairman and president of Weirton.

The second quarter did nothing to help Wheeling-Pittsburgh Steel Corp. out of bankruptcy. The company lost $50 million with $28 million of this coming from a non-recurrent charge.

Phoenix Steel Corp. made money in the second quarter and emerged from bankruptcy.

Nonferrous

Sluggish growth held the nonferrous companies in check during the second quarter. Higher prices remained elusive, for the most part, thanks to import pressures and excessive inventories.

One exception was nickel. Higher prices helped Inco, Ltd., and Falconbridge, Ltd., show substantial improvement in operating profits.

Phelps Dodge Corp. moved further into the black (It had a small net profit in the initial 1985 period.) without much help from copper prices, which weren't much different than they were in the second quarter last year.

George Munroe, chairman, credited the effects of cost cutting programs and higher levels of production at the Morenci, Ariz., and Tyrone, N.M., mines. Unit costs came down with the closing of the Ajo, Ariz., mine in the third quarter last year and the closing of smelters at Ajo and Morenci. The company this year also began realizing the benefits of the $27 million capital improvement program at its Hidalgo, N.M., smelter.

The spot price for copper cathode on the N.Y. Commodity Exchange averaged 61.1¢ a lb in the first half this year and 64.6¢ a lb in the same 1984 period.

Asarco, Inc., pinned its $29 million net loss for the second quarter on lower prices for copper and other nonferrous metals, and on costs relating to suspension of operations at several mines and plants over the past year.

The price of silver, an important product for Asarco, averaged $6.30 an ounce in the second quarter this year, down sharply from the $8.98 an ounce averaged in the same period of 1984. Asarco also noted that the average producer price for copper slipped to 69.1¢ from 70.5¢ a lb a year earlier. The price of lead also was down sharply.

Asarco Chairman Ralph L. Hennebach said the company has been able to reduce losses from domestic operations through stringent cost-cutting, but equity in results of overseas associates was down about $25 million. Asarco's overseas interests include participation in MIM holdings Ltd. of Australia, Southern Peru Copper Corp. and Mexico Desarrollo Industrial Minero SA. Mr. Hennebach said improving fundamentals in the copper market should help future results, barring an economic recession.

Second quarter profits were down in the aluminum sector, reflecting weaker prices for ingot on the international market and their effect on prices for many mill products.

The five largest North American producers, Alcoa, Alcan, Reynolds Metals, Alumax and Kaiser Aluminum, had a 9 pct increase in aggregate shipments to 1.81 million short tons. Aggregate sales and operating revenues of the five companies, however, were down 2.5 pct to about $5.1 billion.

Aluminum Co. of America showed a 9 pct increase in shipments, but its product mix included a larger portion of primary products. Charles M. Parry, chairman, said earnings were depressed "by persistent price weakness that is rooted in excessive producer inventories and the overpriced U.S. dollar, which is attracting a high volume of aluminum imports." He noted, however, that the dollar's strength has been easing recently and that aluminum imports are trending downward.

Alcan Aluminium, Ltd., which also had a larger portion of primary metal items in its second quarter shipments, said weak ingot prices continued to depress results of its North American operations. Alcan's $5 million second quarter loss included a $37 million after-tax charge relating to costs of a restructuring program based mainly on a cutback in North American personnel. The program, which includes early retirement opportunities, separation packages, and reduced office space requirements, should result in annual pre-tax savings of $40 million, Alcan said. The program involves about 1,100 employees.

Kaiser Aluminum & Chemical Corp. estimated that steps taken in 1985 will provide wage and salary cost savings of $85 million a year. Cornell C. Maier, chairman, noted however, that significant cost-cutting measures taken so far did not overcome the impact of lower prices for aluminum mill products. These were more than 12 pct under mill product prices in the same 1984 period, he said.

The Kaiser Aluminum executive said second half operations should benefit from the recently completed $230 million modernization program at its Trentwood, Wash., rolling mill, which has lowered unit costs and boosted rolling capacity.

Inco converted a second quarter 1984 loss of $15.1 million into a $20.9 million profit in the period just ended. The company said its average realized price for primary nickel, excluding intermediates, rose to $2.50 a lb from $2.39 a lb in the second quarter last year. Inco entered the second half with 81 million lbs of nickel in inventory, compared with 88 million lbs on hand at the start of the year. Most of the drop in stocks took place in the first quarter, however.

Inco's second quarter results also were helped by a 48 pct increase in silver shipments, a 53.7 pct increase in cobalt shipments and an 18.2 pct increase in copper deliveries. Shipments of nickel in all forms were up 7.7 pct and shipments of gold and platinum-group metals were down 17.4 pct. □

PRICE & PRODUCTION DATA

(Effective August 12,1985)

Steel production by districts, thousands of tons (000 omitted)

	Last Week	Two Weeks Ago	Month Ago	Year Ago
Northeast Coast	173	172	168	183
Pittsburgh	167	153	210	222
Youngstown	93	95	97	82
Lake Erie	120	120	117	124
Detroit	135	140	137	161
Chicago	466	447	495	427
Cincinnati	87	87	92	83
St. Louis	60	70	75	71
Southern	206	196	210	175
Western	84	86	94	67
U.S. Production	1,591	1,566	1,695	1,595

Source: American Iron & Steel Institute

Lake Superior Ore Prices

51.50% Fe Natural delivered lower Lake ports. Rail transportation, handling and unloading may be charged to the account of the buyer. Coarse ore 80¢ premium.

Pellets (per iron unit natural ..... gross-ton 80.50-86.9*
Mesabi, regular-unscreened ..... gross-ton $32.53
Mesabi, non-bessemer ..... gross-ton $30.03-31.53**

*80.50¢—Pickands Mather as of 1/27/81.
86.9¢—U.S. Steel as of 3/15/82. Cleveland-Cliffs as of 2/26/82, Oglebay Norton as of 3/25/82, and Hanna Mining as of 2/26/82.
**Effective 8/1/83.

STEEL PRODUCTION, COMPOSITE PRICES

(Effective August 12,1985)

U.S. Steel Production	Last Week	Two Weeks Ago	To Date 1985	To Date 1984
Net tons, in thousands	1,591	1,566	54,602	60,809
Capability Utilization Rate	62.4	61.4	66.9	73.7

Composite Prices	This Week	Week Ago	Month Ago	Year Ago
Finished Steel Base* (¢/lb.—eff. 7/1/84)	27.582	27.582	27.582	27.582
Pig Iron** (Net ton = 2000 lbs.)	$213.00	$213.00	$213.00	$213.00
Scrap No. 1 hvy.*** (Gross ton = 2240 lbs.)	$ 74.17	$ 74.17	$ 68.83	$ 82.17
No. 2 bundles	$ 53.83	$ 53.83	$ 50.50	$ 50.83

Scrap Comparison (Gross Ton)

No. 1 steel, Pittsburgh	$ 77.50	$ 77.50	$ 72.50	$ 87.50
No. 1 steel, Philadelphia	72.50	72.50	70.50	80.50
No. 1 steel, Chicago	72.50	72.50	63.50	78.50
No. 1 bundles, Detroit	69.50	69.50	64.50	70.50
Low Phos., Youngstown	70.50	62.50	57.50	80.50
No. 1 mach'y cast., Pgh	71.50	71.50	71.50	71.50
No. 1 mach'y cast., Phila	93.50	91.50	91.50	98.50
No. 1 mach'y cast., Chi	99.50	99.50	99.50	115.50

*Finished Steel Composite: Weighted index of steel bars, shapes, plates, wire, rails, black pipe, hot and cold rolled sheets and strips.
**Pig Iron Composite: Based on average prices for basic and foundry pig iron at representative producing points within the U.S.
***Steel Scrap Composite: Average of No. 1 hvy. melting steel scrap and No. 2 bundles delivered to consumers at Pittsburgh, Philadelphia and Chicago.

NONFERROUS PRICES

(Effective August 12,1985) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated.

Primary Metal Prices

(cents per lb.)	current price	last price	date of change
Aluminum (LME)	46.37	46.05	8/12/85
Copper (C)	66.00-67.00	66.50-67.00	8/ 9/85
Lead	19.00-21.00	19.50-21.00	8/ 2/85
Magnesium Ingot	148.00	143.00	5/25/84
Nickel (LME)	225.67	226.60	8/12/85
Titanium Sponge	555.00-585.00	555.00	4/29/82
Zinc	41.00-47.00	44.00-47.00	7/11/85

ALUMINUM: Avg. for last week & previous week. COPPER (C) = cathode. LEAD: common grade. MAGNESIUM: 99.8% pig, delivered. NICKEL: Avg. for last week & previous week. ZINC: high grade.

Antimony, American Laredo, Texas	$2.00
Beryllium-aluminum 5% Be, per lb. contained Be	$230.00
Beryllium-copper, per lb. cont. Be	$144.00
Beryllium 97% powder 200	$178.00
Cadmium, ton lots	$1.00-1.25
Calcium, ton lots, crown	$3.76
Chromium, 99.8%	$3.75
Cobalt, 99%, cathode	$12.50
Gold per troy oz.	$326.90
Indium, dollars per troy oz.	$2.50
Iridium, dollars per troy oz.	$400.00
Magnesium sticks, 10,000 lbs.	$2.02
Mercury, per 76-lb. f.o.b. N.Y.	$320.00-330.00
Molybdenum, lb. tech. moly oxides, 20 lb. MO can	$6.85
Nickel electro (PDCR)	$3.29
Palladium, per troy oz.	$99.00
Platinum, per troy oz.	$278.00
Rhodium, per troy oz.	$760.00
Silver ingots, per troy oz.	$6.28
Vanadium	$6.00
Zirconium sponge	$12.00-17.00

(Per lb. unless otherwise noted)

Straits Tin Price

(U.S. cents per lb. EX-SMELTER, based on daily market in Penang in Malaysian dollars per kilo.)

Aug. 5—568.65
Aug. 6—566.38
Aug. 7—560.49
Aug. 8—556.81
Aug. 9—558.10

Scrap Prices
Brass Mill Scrap

(Cents per lb; over 20,000 lbs. add 1¢ per lb)

	Solids	Turnings
Copper	61	48½
Yellow brass	53½	45
Red brass	57	47¼
Comm. bronze	58⅜	48
Mang. bronze	46½	45½
Free cutting rod ends	46	45

Custom Smelters Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	56
No. 2 copper wire	48
Light copper	39

Ingot Makers Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	52
No. 2 copper wire	45
Light copper	35
No. 1 composition	46
No. 1 comp. turnings	44
Hvy. yellow brass solids	33
Hvy. yellow brass turnings	30
Radiators	34

Aluminum

New mixed clips	31	— 32
Old sheet	28	— 29
Old cast	28	— 29
Clean dry borings	29	— 30

Dealers' Scrap

(Dealers' buying price f.o.b. New York in cents per pound)

Aluminum

Segregated clippings	24	— 26
Mixed I.C. clips	20	— 22
Old sheets and cast	20	— 21
Borings and turnings	16	— 18
Duraluminum clippings	24	— 25

Copper and Brass

No. 1 copper wire	45	— 46
No. 2 copper wire	37	— 38
Light copper	32	— 33
Radiators	30	— 31
No. 1 composition	38	— 40
No. 1 composition turnings	35	— 37
Cocks and faucets	27	— 29
Clean heavy yellow brass	26	— 28
Brass Pipe	27	— 29
New soft brass clippings	39	— 40

Lead

Heavy soft lead	6	— 8
Whole batteries	1	— 3
Type metal	16	— 17
Electrotype	13	— 15

Nickel

Nickel solids	120	—130
Nickel rod ends	120	—130
Nickel sheets, clips	120	—130
Nickel turnings	35	— 45

Zinc

New zinc clippings	17	— 18
Old diecast zinc	13	— 14

EFFECTIVE AUGUST 12,1985

(Effective August 12,1985) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated. Prices are the opinions of *Iron Age* editors and correspondents, based on contacts with dealers, brokers, generators and users in the industry on the effective date listed above.

Ferrous Scrap Prices

Pittsburgh

No. 1 hvy. melting	$ 77.00 to	$ 78.00
No. 2 hvy. melting	67.00 to	68.00
No. 1 dealer bundles	90.00 to	91.00
No. 1 factory bundles (auto)	87.00 to	88.00
No. 2 bundles	54.00 to	55.00
No. 1 busheling	89.00 to	90.00
Machine shop turnings	7.00 to	8.00
Shoveling turnings	40.00 to	41.00
Cast iron borings	38.00 to	39.00
Low phos. punchings plate	92.00 to	93.00
Heavy turnings	67.00 to	68.00
No. 1 RR hvy. melting	81.00 to	82.00
Rails, 2 ft. and under	95.00 to	96.00
Scrap rails, random lgth	83.00 to	84.00
RR specialties	97.00 to	98.00
No. 1 machinery cast	71.00 to	72.00
Cupola cast	64.00 to	65.00
Heavy breakable cast	30.00 to	31.00
Stainless		
18-8 bundles and solids	615.00 to	625.00
18-8 turnings	515.00 to	525.00

Chicago

No. 1 hvy. melting	$ 72.00 to	$ 73.00
No. 2 hvy. melting	67.00 to	68.00
No. 1 dealer bundles	88.00 to	89.00
No. 1 factory bundles (auto)	82.00 to	83.00
No. 2 dealer bundles	61.00 to	62.00
No. 1 busheling	84.00 to	85.00
Shredder scrap	84.00 to	85.00
Machine shop turnings	42.00 to	43.00
Mixed borings and turnings	44.00 to	45.00
Shoveling turnings	46.00 to	47.00
Cast iron borings	45.00 to	46.00
Low phos. forge crop	96.00 to	97.00
Low phos. punchings plate 1/4 in. and heavier	112.00 to	113.00
Low phos. 2 ft. and under	107.00 to	108.00
No. 1 RR hvy. melting	76.00 to	77.00
Scrap rails random lgth	78.00 to	79.00
Reroller rails	103.00 to	104.00
Rails, 2 ft. and under	101.00 to	102.00
RR couplers and knuckles	94.00 to	95.00
RR car axles	111.00 to	112.00
No. 1 machinery cast	99.00 to	100.00
Cupola cast	87.00 to	88.00
Stove plate	89.00 to	90.00
Steel car wheels	89.00 to	90.00
Stainless		
18-8 bundles and solids	560.00 to	570.00
18-8 turnings	475.00 to	485.00
430 bundles and solids	150.00 to	155.00
430 turnings	120.00 to	125.00

Philadelphia

No. 1 hvy. melting	$ 71.00 to	$ 74.00
No. 2 hvy. melting	62.00 to	65.00
No. 1 dealer bundles	85.00 to	88.00
No. 2 dealer bundles	44.00 to	47.00
No. 1 busheling	85.00 to	88.00
Shredder scrap	85.00 to	88.00
Machine shop turnings	25.00 to	28.00
Mixed borings and turnings	25.00 to	28.00
Shoveling turnings	41.00 to	44.00
Low phos. 5 ft. and under	81.00 to	84.00
Low phos. 2 ft. punchings	97.00 to	100.00
Electric furnace bundles	89.00 to	92.00
RR specialties	81.00 to	84.00
Rails, 2 ft. and under	100.00 to	103.00
Cupola cast	77.00 to	80.00
Heavy breakable cast	53.00 to	56.00
No. 1 machinery cast	92.00 to	95.00

Detroit

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 54.00 to	$ 55.00
No. 2 hvy. melting	53.00 to	54.00
No. 1 dealer bundles	69.00 to	70.00
No. 2 bundles	30.00 to	31.00
No. 1 busheling	68.00 to	69.00
Drop forge flashings	44.00 to	45.00
Machine shop turnings	40.00 to	41.00
Mixed borings and turnings	19.00 to	20.00
Shoveling turnings	40.00 to	41.00
Cast iron borings	24.00 to	25.00
Heavy breakable cast	35.00 to	36.00
Mixed cupola cast	50.00 to	51.00
Automobile cast	74.00 to	75.00
Stainless		
18-8 bundles and solids	540.00 to	550.00
18-8 turnings	415.00 to	425.00
430 bundles and solids	115.00 to	125.00

Youngstown

No. 1 hvy. melting	$ 67.00 to	$ 70.00
No. 2 hvy. melting	56.00 to	59.00
No. 1 dealer bundles	74.00 to	77.00
No. 2 dealer bundles	31.00 to	34.00
Machine shop turnings	26.00 to	29.00
Shoveling turnings	26.00 to	29.00
Low phos. plate	69.00 to	72.00
Electric furnace bundles	73.00 to	76.00
Galvanized bundles	66.00 to	69.00

Cleveland

No. 1 hvy. melting	$ 55.00 to	$ 58.00
No. 2 hvy. melting	46.00 to	49.00
No. 1 dealer bundles	77.00 to	80.00
No. 1 factory bundles	66.00 to	69.00
No. 2 bundles	27.00 to	30.00
No. 1 busheling	75.00 to	78.00
Machine shop turnings	16.00 to	19.00
Mixed borings and turnings	9.00 to	12.00
Shoveling turnings	24.00 to	27.00
Cast iron borings	18.00 to	21.00
Cut structural & plates, 2 ft. and under	97.00 to	100.00
Low phos. punchings plate	99.00 to	102.00
Drop forge flashings	52.00 to	55.00
Foundry steel, 2 ft. & under	69.00 to	72.00
No. 1 RR hvy. melting	63.00 to	66.00
Rails, 2 ft. and under	88.00 to	91.00
Rails, 18 in. and under	92.00 to	95.00
Steel axle turnings	59.00 to	62.00
Railroad cast	91.00 to	94.00
No. 1 machinery cast	90.00 to	93.00
Cupola cast	57.00 to	60.00
Stove plate	56.00 to	59.00
Stainless		
18-8 bundles	385.00 to	395.00
18-8 turnings	335.00 to	345.00
430 bundles	90.00 to	95.00

Buffalo

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 55.00 to	$ 56.00
No. 2 hvy. melting	45.00 to	46.00
No. 1 busheling	70.00 to	71.00
No. 1 dealer bundles	69.00 to	70.00
No. 2 bundles	33.00 to	34.00
Machine shop turnings	17.00 to	18.00
Mixed boring and turnings	17.00 to	18.00
Shoveling turnings	23.00 to	24.00
Cast iron borings	25.00 to	26.00
Low phos. plate	77.00 to	78.00
Structural and plate, 2 ft. and under	79.00 to	80.00
Rails, 2 ft. and under	81.00 to	82.00
Scrap rails, random lgth	65.00 to	66.00
No. 1 machinery cast	76.00 to	77.00
No. 1 cupola cast	58.00 to	59.00

St. Louis

No. 1 hvy. melting	$ 50.00 to	$ 51.00
No. 2 hvy. melting	39.00 to	40.00
Foundry steel, 2 ft.	48.00 to	49.00
No. 1 dealer bundles	50.00 to	51.00
No. 2 bundles	34.00 to	35.00
Machine shop turnings	15.00 to	16.00
Shoveling turnings	21.00 to	22.00
Cast iron borings	30.00 to	31.00
No. 1 RR hvy. melting	53.00 to	54.00
Rails, random length	59.00 to	60.00
Rails, 18 in. and under	72.00 to	73.00
RR specialties	70.00 to	71.00
Cupola cast	71.00 to	72.00
Heavy breakable cast	49.00 to	50.00
Stove plate	89.00 to	90.00
Steel car wheels	81.00 to	82.00
Rerolling rails	69.00 to	70.00
Unstripped motor blocks	64.00 to	65.00

Birmingham

No. 1 hvy. melting	$ 76.00 to	$ 77.00
No. 2 hvy. melting	72.00 to	73.00
No. 1 dealer bundles	76.00 to	77.00
No. 2 bundles	51.00 to	52.00
No. 1 busheling	76.00 to	77.00
Shredder scrap	93.00 to	94.00
Machine shop turnings	27.00 to	28.00
Shoveling turnings	40.00 to	41.00
Cast iron borings	39.00 to	40.00
Electric furnace bundles	68.00 to	69.00
Elec. furnace, 3 ft. & under	72.00 to	73.00
Structural and plate, 2 ft.	92.00 to	93.00
Structural and plate, 4 ft.	86.00 to	87.00
No. 1 RR hvy. melting	86.00 to	87.00
Scrap rails, random lgth	80.00 to	81.00
Rails, 2 ft. and under	94.00 to	95.00
Angles and splice bars	84.00 to	85.00
No. 1 cupola cast	86.00 to	87.00
Unstripped motor blocks	76.00 to	77.00

Cincinnati

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 54.00 to	$ 55.00
No. 2 hvy. melting	53.00 to	54.00
No. 1 dealer bundles	64.00 to	65.00
No. 2 bundles	34.00 to	35.00
Machine shop turnings	9.00 to	10.00
Shoveling turnings	11.00 to	12.00
Cast iron borings	15.00 to	16.00
Low phos. 18 in. and under	79.00 to	80.00
Rails, random length	64.00 to	65.00
Rails, 2 ft. and under	74.00 to	75.00
No. 1 cupola cast	59.00 to	60.00
Heavy breakable cast	24.00 to	25.00
Drop broken cast	71.00 to	72.00

New York

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 44.00 to	$ 45.00
No. 2 hvy. melting	35.00 to	36.00
No. 2 dealer bundles	20.00 to	24.00
Mixed borings and turnings	10.00 to	11.00
Machine shop turnings	4.00 to	6.00
Shoveling turnings	10.00 to	12.00
Clean cast, chem. borings	35.00 to	36.00
No. 1 machinery cast	79.00 to	80.00
Mixed yard cast	50.00 to	51.00
Heavy breakable cast	10.00 to	12.00
Stainless		
18-8 prepared solids	520.00 to	540.00
18-8 turnings	420.00 to	440.00
430 prepared solids	90.00 to	110.00
410 solids	80.00 to	90.00

Boston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 51.00 to	$ 53.00
No. 2 hvy. melting	41.00 to	43.00
No. 1 dealer bundles	53.00 to	55.00
No. 2 bundles	34.00 to	36.00
No. 1 busheling	59.00 to	61.00
Shredder scrap	61.00 to	63.00
Machine shop turnings	12.00 to	14.00
Shoveling turnings	18.00 to	20.00
No. 1 machinery cast	75.00 to	80.00
Mixed cupola cast	46.00 to	48.00
Heavy breakable cast	8.00 to	10.00

San Francisco

No. 1 hvy. melting	$ 38.00 to	$ 40.00
No. 2 hvy. melting	32.00 to	34.00
No. 1 dealer bundles	29.00 to	31.00
No. 2 dealer bundles	17.00 to	19.00
Machine shop turnings	8.00 to	9.00
Cast iron borings	8.00 to	9.00
No. 1 cupola cast	80.00 to	82.00

Los Angeles

No. 1 hvy. melting	$ 38.00 to	$ 40.00
No. 2 hvy. melting	32.00 to	34.00
No. 1 dealer bundles	29.00 to	31.00
No. 2 dealer bundles	16.00 to	18.00
Machine shop turnings	13.00 to	14.00
Shoveling turnings	10.00 to	11.00
Cast iron borings	8.00 to	9.00
Elec. furnace, 1 ft. and under (foundry)	70.00 to	72.00
No. 1 cupola cast	72.00 to	74.00

Seattle

No. 1 hvy. melting	60.00 to	62.00
No. 2 hvy. melting	51.00 to	53.00
No. 2 bundles	35.00 to	37.00
No. 1 cupola cast	89.00 to	90.00
Mixed yard cast	80.00 to	82.00

Hamilton, Ont.

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 80.00
No. 2 hvy. melting, cut 2 ft. and under	70.00
No. 1 dealer bundles	81.00
No. 2 bundles	52.00
Mixed steel scrap	49.00
Rush. new fact. prep'd	81.00
Bush. new fact. unprp'd	71.00
Machine shop turnings	33.00
Short steel turnings	33.00
Mixed borings and turnings	18.00
Cast scrap	87.00

Houston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 72.00 to	$ 73.00
No. 2 hvy. melting	59.00 to	60.00
No. 2 bundles	43.00 to	44.00
Machine shop turnings	15.00 to	16.00
Crushed turnings	33.00 to	34.00
Shredder scrap	79.00 to	80.00
Cut structural plate, 2 ft. and under	100.00 to	101.00
Cut structural plate, 5 ft. and under	84.00 to	85.00
Unstripped motor blocks	60.00 to	61.00
Cupola cast	86.00 to	87.00

PRODUCER KEY
With Principal Offices

A7 Armco Inc., Middletown, Ohio
A8 Atlantic Steel Co., Atlanta, Ga.
A11 Atlantic Wire Co., Branford, Conn.

B1 Baron Drawn Steel Corp., Toledo, Ohio
B3 Bethlehem Steel Corp., Bethlehem, Pa.
B4 Blair Strip Steel Co., New Castle, Pa.
B5 Bliss & Laughlin Steel Co., Harvey, Ill.

C6 CF&I Steel Corp., Pueblo, Colo.
C10 Copperweld Steel Co., Warren, Ohio
C16 Connors Steel Co., Birmingham, Ala.
C20 Calumet Steel Div., Chicago Heights, Ill.

D1 Detroit Strip Div., Cyclops Corp.

E4 Elliot Bros. Steel Co., New Castle, Pa.

F1 Firth Sterling, Inc., McKeesport, Pa.

G2 Granite City Steel Div., National Steel Corp., Granite City, Ill.
G3 Great Lakes Steel Div., National Steel Corp., Ecorse, Mich.
G4 Greer Steel Co., Dover, Ohio
G5 Green River Steel Corp., Owensboro, Ky.
G6 Gibraltar Steel Corp., Buffalo, N. Y.
G7 Georgetown Steel Corp., Georgetown, S.C.

H1 Hercules Drawn Steel Corp., Livonia, Mich.

I2 Ingersoll Steel Div., Newcastle, Ind.
I3 Inland Steel Co., Chicago
I4 Interlake Steel Corp., Chicago

J2 Jessop Steel Corp., Washington, Pa.
J3 Jones & Laughlin Steel Corp., Pittsburgh
J4 Joslyn Mfg. & Supply Co., Chicago
J5 Judson Steel Corp., Emeryville, Calif.

K2 Keystone Consolidated Industries, Inc.
K3 Kentucky Electric Steel Co., Ashland, Ky.
K5 Kemco Div., Foote Mineral Co., Keokuk, Ia.

L2 La Salle Steel Co., Chicago
L3 Lone Star Steel Co., Dallas
L4 Lukens, Inc., Coatesville, Pa.

M2 McLouth Steel Products Corp., Detroit
M8 Mill Strip Products Div., National Steel Service Center, National Steel Corp.
M9 Moltrup Steel Products Co., Beaver Falls, Pa.
M11 Midwest Steel Div., National Steel Corp., Portage, Ind.

N1 Northeast Precision Steel Co., Boston
N4 Northwestern Steel & Wire Co., Sterling, Ill.
N6 Northwest Steel Rolling Mills, Seattle
N9 Nelsen Steel & Wire Co., Chicago
N10 North Star Steel Co., Saint Paul, Minn.

O2 Oregon Steel Mills, Portland, Ore.

P2 Phoenix Steel Corp., Claymont, Del.
P15 Philadelphia Steel and Wire Corp., Phila.

R3 Republic Steel Corp., Cleveland
R4 Ramco Steel Co., Buffalo, N. Y.
R5 Roblin Steel Corp., North Tonawanda, N.Y.
R7 Rome Strip Steel Co., Rome, N. Y.

S1 Sharon Steel Corp., Sharon, Pa.
S7 Stanley Works, New Britain, Conn.
S8 Superior Drawn Steel Co., Monaca, Pa.
S10 Seneca Steel Corp., Buffalo, N. Y.
S16 Southern Precision Steel Co., Gulfport, Miss.

T4 Thomas Steel Strip Co., Warren, Ohio
T5 Timken Co., Steel Division, Canton, Ohio
T7 Texas Steel Co., Fort Worth, Tex.
T9 Triumph Electro Corp., Chicago
T10 Tennessee Forging Steel Corp., Harriman, Tenn.
T11 Teledyne Columbia-Summerill, Carnegie, Pa.

U1 United States Steel Corp., Pittsburgh

W3 Weirton Steel Corp., Weirton, W. Va.
W5 Wheeling-Pittsburgh Steel Corp.
W7 Wilson Steel & Wire Co., Chicago
W10 Wyckoff Steel Div., Ampco-Pittsburgh Corp., Pittsburgh
W14 Whittar Steel Strip Div., Whittar Industries, Ltd., Detroit

STEEL SERVICE CENTER PRICES

Price, Dollars per 100 lb

Prices are based on list prices reported to *Iron Age* by a number of metal service centers deemed representative by *Iron Age* and then weighted based in part on the reports received each month. Prices are not intended to reflect the actual transaction prices obtained by any individual metal service center.

Cities* / City Delivery Charge*	Sheets			Strip	Plates	Shapes	Bars		Alloy Bars			
	Hot-Rolled (10 gage)	Cold-Rolled (20 gage)	Galvanized (16 gage)	Hot-Rolled Strip	Plates	Standard Structurals	Hot-Rolled (merchant)	Cold Finished	Hot-Rolled 8620 1½ Rolled	Hot-Rolled 4140 Annealed	Cold-Drawn 8620 1½ Rolled	Cold-Drawn 4140 Annealed
Atlanta	25.41	31.70	32.62	26.67	24.65	22.82	20.60	28.62	31.12	45.15	60.50	67.56
Baltimore	25.36	29.71	34.55	31.60	29.01	28.09	23.33	31.80	46.54	50.09	60.10	66.46
Birmingham	24.01	28.33	33.23	25.96	23.11	22.93	21.90	28.91	43.29	49.95	60.60	68.74
Boston	31.38	38.03	42.90	40.70	29.58	29.30	24.56	31.30	37.35	40.76	50.37	55.65
Buffalo	28.31	34.38	39.47	34.70	27.06	25.44	20.81	29.01	36.43	38.76	46.48	53.50
Chicago	27.10	33.65	36.70	24.29	21.37	19.53	18.85	24.82	29.01	36.60	44.26	49.91
Cincinnati	28.00	33.78	36.59	25.00	24.08	19.48	18.23	26.15	30.91	37.71	44.52	49.89
Cleveland	26.86	32.99	36.30	27.60	23.61	21.75	18.60	28.04	33.76	37.75	44.76	51.24
Denver	29.83	36.07	35.08	30.85	26.26	23.80	21.04	34.08	43.97	51.10	60.29	64.85
Detroit	27.74	34.01	37.01	24.20	24.08	20.10	18.61	26.13	30.83	37.38	44.57	50.47
Houston	26.09	27.75	30.90	32.18	24.38	23.91	21.60	35.02	42.12	42.29	55.65	62.74
Kansas City	27.96	34.56	37.59	26.87	24.76	20.85	17.95	29.52	36.05	40.14	46.87	51.81
Los Angeles	25.48	29.99	34.70	28.88	25.67	31.65	26.64	34.41	46.74	50.34	60.30	67.40
Memphis	22.92	30.88	32.23	26.91	23.85	23.75	21.20	30.26	33.38	44.50	56.48	65.86
Milwaukee	27.33	33.41	36.49	25.27	24.41	20.88	18.82	24.99	30.58	37.07	43.78	49.90
New York	29.57	36.02	39.81	36.75	30.03	24.64	22.02	31.77	37.76	41.73	46.90	52.12
Philadelphia	26.45	33.48	38.45	36.91	27.35	25.70	21.80	28.78	36.98	42.37	50.90	57.27
Pittsburgh	36.49	38.17	40.78	34.12	32.70	27.38	25.17	27.20	34.96	39.45	46.84	51.06
Portland	27.28	30.23	35.46	31.35	31.00	34.05	27.09	36.70	45.72	50.95	65.50	.....
San Francisco	25.38	30.50	34.87	29.04	25.10	29.46	26.71	34.99	48.50	50.84	60.35	67.40
Seattle	28.00	28.96	35.47	27.92	20.99	27.00	26.70	35.43	43.61	52.61	65.62	66.15
Spokane	21.04	29.38	35.34	31.74	30.37	33.23	23.00	37.00	39.45	42.47	.....	55.15
St. Louis	27.41	30.60	35.00	26.75	23.00	19.55	19.18	28.93	34.60	38.39	45.11	50.75
St. Paul	27.19	32.39	34.23	30.78	23.10	26.12	18.68	28.78	34.06	37.59	44.36	50.29

Base Quantities. All HR products may be combined for quantity. Hot-rolled sheet, 10 ga x 36 x 96—120; Cold-rolled sheet, 20 ga x 36 x 120; Galv. sheet—16 ga x 36—120; Hot-rolled strip—1/8" x 1"; Plate 1/4" x 84"; Shapes—I-Beams 6 x 12.5; Hot-rolled bar—Rounds 3/4-2-15/16; Cold finished bar—C 1018—1" rounds; Alloy bar—Hot-rolled 8620—1-5/8" round; Cold drawn—1" round; Hot-rolled 4140—1- 5/8" round; Cold drawn—1" round. Check local supplier for additions or deductions from base.

*Prices at all points include metropolitan delivery charges.

Codes identify Producers listed on p. 112. (Prices quoted are mill base prices in cents per pound unless otherwise noted and do not reflect extras or surcharges.)
N.A. = Not available.

Billets, Blooms, Slabs

(Dollars per net ton)

Carbon Rerolling, Midwest
W5 $366.00
N4 $366.00
West
C6 $346.00
Carbon Forging, East
B3(2) $473.00
C10, U1 $473.00
R3 $453.00
Midwest
R3, W5 $453.00
U1 $473.00
S1, I3 $473.00
C10 $473.00
K2 $473.00
West
C6 $420.00
Alloy, East
R3 $492.00
B3 $512.00
U1, C10 $512.00
Midwest
W5 $492.00
U1, I3 $512.00
C10 $512.00
R3 $492.00
S1 $512.00
West
C6 $469.00

Structurals

Carbon, East
B3 22.90
J3 23.90
Midwest
C20 22.90
W8 22.90
I3 23.90
T10 23.90
N4 23.90
South
C16 23.90
T10 22.90
High-Strength, Low Alloy, East
B3 22.90
J3 23.90
Midwest
N4 23.90
W8 24.15
I3 23.90
South
C16 23.90
Wide Flange, Carbon, East
B3 22.90
U1 22.75
J3 23.90
Midwest
U1 22.75
N4 23.90
I3 23.90
Wide Flange, High Strength-Low Alloy, East
U1 24.30
Midwest
U1 24.30

Strip

Hot-Rolled, Carbon, Cut to Edge—all widths, East
U1, B3 23.75
J3 22.05
Midwest
D1 22.05
I4 22.85
J3, W3 22.05
G2, G3 23.45
N4 22.55
W5, S1 23.75
U1, A7 23.75
I3, B3 23.75
M2 22.05
R3 22.05
South
R3 22.05
Cold-Rolled, Carbon Max. 25%, East
E4 29.75
S10 29.60
P15 24.80
B4 36.60
G6 36.175
Midwest
I4 38.30
W14 32.80
J4 34.05
S1 37.05
High-Strength, Hot-Rolled, Low Alloy, Cut Edge & Mill Edge, All widths, (plus extras)*
Midwest
M2, R3 22.05
W3, J3 22.05
G2, G3 23.45
S1 23.75
A7 25.35
South
R3 22.05
High-Strength, Cold-Rolled, Low Alloy, Mill Edge
Midwest
S1 37.05
Alloy, Hot-Rolled, Midwest (plus extras)*
S1 26.10
I4 25.20
Alloy, Cold-Rolled East (plus extras)*
E4,M8 43.35
B4 49.75
P15 32.10
Midwest
I4 44.30
S1 44.80

Sheets

Hot-Rolled, Carbon (18 Ga & Hvyr), East
B3 23.75
J3 22.05
U1 23.75
Midwest
M2, R3, W3 22.05
D1, J3 22.05
G2, G3 23.45
I4 22.45
U1, W5 23.75
S1, B3 23.75
I3, A7 23.75
West
U1 24.25
South
R3 22.05
Cold-Rolled, East, Class 1
B3(2) 28.15
J3 26.15
U1 28.15
Midwest
R3, M2, W3 26.15
G2, G3, M11 27.85
J3 26.15
D1 26.15
U1, W5 28.15
S1, B3 28.15
I3, A7 28.15
West
U1 28.65
South
R3 24.65
Galvanized (hot-dipped), East
B3(2) 30.30
U1 30.30
Midwest
J3, D1, W3 28.00
R3, Y1 28.00
G2, M11 30.00
U1, W5 30.30
S1 30.30
I3 30.30
A7 30.30
West
U1 30.80
South
R3 28.00
Enameling, Midwest
U1, S1 29.65
I3, A7 29.65
J3 27.65
Long-Terne, Midwest
W5, A7, U1 31.65
R3 29.35

Wire Rod

East
B3(2) 22.35
Midwest
N4, K2 22.35
U1 24.10
A7 22.00
West
C6 21.45
South
G7 22.35

Tinplate

Electrolytic Tinplate
Single Reduced (70 lb)

	per base box
East	
J3	26.29
U1	28.99
Midwest	
U1	28.99
J3	26.29
M11	27.54
W3	26.29
W5	28.99
West	
U1	29.49
South	
U1	28.99

Double Reduced (55 lb)**
Midwest
M11 21.95
J3 21.49
U1 23.38
W3 21.49
W5 23.38
West
U1 23.88
South
U1 23.38
Black Plate
Single Reduced (70 lb)*
East
B3 24.81
Midwest
J3, W3 24.01
I3 24.57
W5 25.55
U1, 26.27
M11 26.27
West
U1 26.27
Double Reduced (55 lb)
East
B3 20.49
Midwest
W5, M11, U1 20.49
J3 18.93
W3 18.93
West
U1 20.49
South
U1 20.49
*75 lb—base weight extra 69¢
**50 lb—base weight extra $1.40

Bars

Carbon Steel, Hot-Rolled (Special quality)
East
R3, K3, R5 25.80
J3 25.80
U1 27.05
C10 27.05
B3 27.05
Midwest
I4 26.00
U1, I3 27.05
R3, T10 25.80
C20, N4 25.80
K2 25.80
A7 20.25
West
C6 24.45
South
A8 20.65
C16 25.80
Cold-Finished Carbon, East
A11 22.15
R3 33.75
T11, S8 31.00
J3(4), L2 31.00
M8, W10 31.00
N1 24.475
R4, B4 33.25
C10 31.00
Midwest
W10, R3 33.25
J3 31.00
B1 33.45
L2 30.75
N9 31.00
W14 22.20
B5, M9 34.75
West
R3 37.15
South
J3 34.00
C16 24.40
J3 31.95
Alloy, Hot-Rolled, East
R5, K3 27.95
R3, J3 27.95
U1 29.20
B3 29.20
C10 29.20
Midwest
R3 27.95
I3, C10, U1 29.20
I4 27.35
A7 20.25
West
C6 26.60
South
A8 22.00
Alloy, Cold-Drawn, East
L2 35.20
R3, N1 37.90
R4 37.10
J3, W10, L2 34.85
T11, S8 34.85
C10 34.85
Midwest
R3 37.35
J3, W10, C10 34.85
B1 37.30
N9 34.85
L2 34.85
B5, M9 38.60
West
R3 40.75
South
J3 35.85
C16 28.00

Plates

Carbon Steel, East
B3 23.25
L4, U1 25.75
P2 23.25
J3 26.75
Midwest
R3 23.25
I3 25.75
J3, A7 22.80
U1, I4, S1 25.75
R3 26.75
West
U1 25.75
O2 23.00
South
R3 25.75
U1 25.75
Alloy East
B3 31.05
U1, L4 33.55
P2 33.55
J3 34.55
Midwest
B3 31.05
I4, U1 33.55
West
O2 31.00
South
U1 33.55

Wire

Carbon Steel Wire, East
B3 27.10
A11 22.15
Midwest
R3 24.60
N4, W7 27.40
K2 24.20
South
A8 22.85
West
C6 24.95

ORDERS SET BASE FOR WIDESPREAD RALLY

Orders picked up a good head of steam in June. They totaled $107 billion, up a strong 3.6 pct from May. That gain followed a 3.2 pct rise in May.

Not all durable goods producers were carried along by the quickened pace of orders in May and June. Still, the overall strength of the two-month advance holds the promise of a later sharing in the feast by the present laggards.

A scary orders downtrend had set in earlier in the year and this made the May-June gains all the more welcome. Orders tumbled throughout the first four months of the year, and in April they were 5.4 pct below the January volume.

The strong May-June orders showing thus signals a turnaround. This news has given a lift to durable goods producers—either through a step-up in orders flow, or the promise of an imminent step-up.

The gains in orders in June were largely concentrated in a few product lines. Orders received by makers of aircraft and missiles were up a whopping 32 pct—from $8 billion in May to $10.6 billion. Also, orders for communications equipment were up better than 18 pct—from $5.5 billion to $6.8 billion.

Despite the concentration in orders gains in June, there were few durable goods categories in which orders were down. This broad holding of the line in orders in June suggests that the renewed orders strength may be spreading.

A rising tide for orders across a broad spectrum of durable goods industries is long overdue. For example, in real terms, June orders volume was up less than 4 pct from June a year ago. And many industries didn't share in that slight rise.

The betting seems to be that if interest rates and imports don't go higher, durable orde: will rise.

Billions of Dollars, Seasonally adjusted Monthly Total, unless otherwise noted Source: U.S. Dept of Commerce		Latest Month or Qtr.	Previous Month or Qtr.	Same Period Year Ago
CAPITAL EXPENDITURES (Annual Rates)				
U.S. Industry, Total	3rd Qtr*	$392.6	$385.3	$361.1
Manufacturing, Total	3rd Qtr*	160.8	155.5	142.0
Manufacturing, Durable Goods	3rd Qtr*	77.8	75.7	68.3
Mining Industry	3rd Qtr*	16.2	16.5	17.0
KEY INDICATORS, Durable Goods Manufacturing				
New Orders	June	106.7	103.0	98.3
Shipments	June	102.8	102.7	97.7
Inventories	June	192.5	191.5	182.5
Unfilled Orders	June	349.1	345.1	344.6
NEW ORDERS, METALWORKING				
Capital Goods Produce.., Nondefense Industries	June	28.3	25.6	27.7
Capital Goods Producers Defense Industries	June	11.0	8.8	6.8
Primary Metals, Total	June	10.6	10.6	10.0
Steel (SIC 331)	June	4.4	4.2	3.7
Iron & Steel Castings (SIC 332)	June	1.2	1.2	1.2
Nonferrous Metals	June	5.0	5.0	4.9
Nonelectrical Mach.-Equip. Industries, Total	June	17.8	17.3	18.3
Engines & Turbines	June	1.5	1.0	1.4
Farm Machinery & Equipment (Shipments)	June	0.8	0.9	0.9
Construction, Mining & Mat. Hdlg. Equip	June	2.8	2.7	2.9
General Industrial Machinery	June	1.5	1.3	1.5
Fluid Power Equipment** (Index-1972 = 100)	June	250.0	283.0	300.0
Metalworking Machinery	June	1.0	0.9	0.8
Machine Tools, Total ($Mill., Unadjusted)***	June	235.0	222.7	191.8
Machine Tools, Metalcutting***	June	182.9	170.7	131.0
Machine Tools, Metalforming***	June	52.1	52.0	60.8
Electrical Mach. & Equip. Industries, Total	June	16.4	14.9	16.3
Elec. Transmission Equip. & Ind. Apparatus	June	2.0	2.0	2.0
Household Appliances	June	1.5	1.4	1.5
Communication Equipment	June	6.8	5.5	5.4
Transportation Equipment, Total	June	28.1	26.4	23.6
Motor Vehicles & Parts (Shipments)	June	15.3	16.8	14.9
Aircraft, Missiles & Parts	June	10.6	8.0	7.2
Shipbuilding & Military Tanks	June	1.3	1.0	0.8
Fabricated Metal Products, Total	June	13.4	13.6	11.2
Instruments, Total	June	4.9	4.8	4.5

*Est.—Commerce Dept. **Source: National Fluid Power Assn., ***Source: NMTBA.